

CALIFORNIA ENERGY RESOURCES CONSERVATION
AND DEVELOPMENT COMMISSION
FUELS AND TRANSPORTATION COMMITTEE

PUBLIC WORKSHOP
POSSIBLE IMPACTS OF MTBE PHASE-OUT
ON GASOLINE SUPPLIES

HEARING ROOM A
1516 NINTH STREET
SACRAMENTO, CALIFORNIA

TUESDAY, FEBRUARY 19, 2002

9:30 a.m.

Reported By:

Peter Petty

Contract No. 150-01-005

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

COMMITTEE MEMBERS PRESENT

James D. Boyd, Commissioner, Associate Member

Susan Bakker, Commissioner Advisor

Mike Smith, Commissioner Advisor

STAFF PRESENT

Nancy Deller

Pat R. Perez

Gordon Schremp

Ramesh Ganeriwal

CONSULTANTS

David Hackett

Gregg Haggquist

Thomas Gieskes

Stillwater Associates

Drew Laughlin

Energy Consultant

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

I N D E X

	Page
Proceedings	1
Opening Remarks	1
Overview of Issues	8
Contractor Presentation on Impact of MTBE Phase-Out	17
Luncheon Recess	110
Afternoon Session	111
Public/Stakeholder Questions and Comments on Contractor Report	
James S. White White Environmental Associates	111
Michael Greene Community Development Services	116
Larry Goodwin Texas Petrochemicals LP	118
Steven Smith Phillips Petroleum	119
Glenn Giacobbe Lyondell	127
Brooke Coleman Renewable Energy Action Project	127
Jay McKeeman CIOMA	134
Elisa Lynch Bluewater Network	145
E-mail from Christine Stackpole Downstream Oil Cambridge Energy Research Associates	153

I N D E X

	Page
Public/Stakeholder Questions and Comments on Contractor Report - continued	
Steven Shaffer California Department of Food and Agriculture	159
Charlie Peters CAPP	161
Bruce Heine Williams	166
Nicholas Economides Hart/IRI Fuels Information Services	171
E-mail from Christine Stackpole Downstream Oil Cambridge Energy Research Associates	182
Jack King California Farm Bureau Federation	183
Mike Tinney Tinney Associates	195
Matt Williams, Citizen	195
Steven Shaffer California Department of Food and Agriculture	199
Charlie Peters CAPP	205
Neil M. Koehler Kinergy Resources	208
Chad Tuttle Kern Oil and Refining Company	219
Wrap-up and Closing Remarks	225
Adjournment	232
Certificate of Reporter	233

1 P R O C E E D I N G S

2 COMMISSIONER BOYD: Thank you, and good
3 morning. Welcome to this Commission Workshop. My
4 name is Jim Boyd. I am a relatively new
5 Commissioner who was handed this hot potato today
6 already, so I got no honeymoon.

7 I am the Second Member of the Fuels and
8 Transportation Committee. Chairman Keese is the
9 Presiding Member of the Committee, but he's unable
10 to be with us today because of another work
11 commitment that has him out of town. So, thus, I
12 am Chairing this group.

13 This is a Public Workshop of the Fuels
14 and Transportation Committee, and our audience,
15 besides those of you here in the room, I am told,
16 includes people joining us by audio. I understand
17 that there are people who are joining us via the
18 Internet, through the Commission's Web page, and
19 there are other people who are joining us via
20 phone line to at least listen in to this
21 proceeding.

22 So we have perhaps a very large
23 audience, and a little later, when I take us
24 through the agenda we'll try to set up logistics
25 for dealing with hearing from everybody, because,

1 as I said, this is a public workshop of the
2 Commission's Fuels and Transportation Committee,
3 and we want to enhance as much as possible the
4 opportunity for stakeholders and the public to
5 participate.

6 We're here today to discuss work by a
7 Commission contractor on the possible impacts of
8 the phase-out of MTBE on California's gasoline
9 supply. I think, as most everybody who would be
10 here and interested in this subject knows that
11 Governor Davis issued an Executive Order in early
12 1999 ordering the phase-out of MTBE by December
13 31st of this year. Since that action was taken, a
14 number of issues, new issues, have arisen that the
15 Commission feels need to be addressed to help
16 ensure a smooth transition to MTBE-free gasoline
17 in California.

18 Because of the importance and the timing
19 of this issue, we've asked the consultant, or the
20 consultants, that have been retained by the
21 Commission to present in this public forum the
22 findings of their recently completed work. And
23 the presentation is both to the Fuels and
24 Transportation Committee, which I am representing
25 here today, and to all of you interested

1 stakeholders and to the interested public.

2 The Commission retained Stillwater
3 Associates and Drew Laughlin to assist it in
4 evaluating the feasibility of creating a strategic
5 petroleum reserve for California in response to
6 legislation calling for that study, Assembly Bill
7 2076. Analyses performed for this study, which
8 will be released next month, led the contractors
9 to believe that a significant supply shortfall of
10 gasoline would result if the MTBE phase-out
11 proceeded on the schedule that has heretofore
12 been laid out.

13 As a result, the Energy Commission felt
14 it important that the fuel supply and demand
15 analysis portion of the strategic fuels reserve
16 study be presented early, meaning today, to
17 industry experts, to government representatives,
18 and to others, others of the interested public
19 that are referred to, as well as to the Committee
20 of the Commission charged with responsibility for
21 this subject.

22 The contractors will be presenting their
23 evaluation of the problem, as well as their view
24 of the options that can be taken to avoid
25 potential gasoline supply shortfalls.

1 At this workshop today we are seeking
2 not only input, the input from the contractors,
3 but we're seeking your critique, as well as your
4 comments, on the contractors' work. Based on what
5 the Commission hears today, both Staff and
6 Commission representatives of the Fuels and
7 Transportation Committee, and based on written
8 comments that will be and have been submitted to
9 the Commission, the Staff will issue a report to
10 the Fuels and Transportation Committee on March
11 8th of this year. They'll present their
12 evaluation of the problems and they'll present to
13 that Committee recommended actions.

14 Now, there's been a significant
15 realization that the material that we'll be
16 covering today has not been provided to most
17 everyone much in advance. Some of this last
18 night, for the first time in their lives. For
19 this reason, I'm going to extend the due date for
20 written comments from that previously announced,
21 as February 25th, to March 1st, giving the Staff
22 not a lot of time to digest that and provide their
23 recommendations. But the significance of this
24 issue speaks to the fact that the affected parties
25 need the maximum amount of time in order for the

1 Commission to have the absolute best input and to
2 make the best judgment on this subject.

3 Now, for those of you listening via the
4 Webcast, copies of the presentations that the rest
5 of us will be hearing, and copies of the draft
6 study, are available on the Energy Commission's
7 Web site at www.energy.ca.gov.

8 MR. PEREZ: If I may right now,
9 Commissioner Boyd, I was just alerted that one of
10 the things we need to do is take about a five
11 minute recess to open up the public access line
12 right now. So if I may, I'd like to request we
13 take a brief recess.

14 COMMISSIONER BOYD: Ah, the advances of
15 technology already. Okay. Consider yourself in
16 recess.

17 MR. PEREZ: Thank you.

18 (Off the record.)

19 COMMISSIONER BOYD: Welcome to those of
20 you who are joining the he Webcast.
21 Unfortunately, you have missed some of the
22 introductory comments, but let me go back over a
23 couple of points.

24 I just indicated to the audience here
25 that because we are going to be discussing a large

1 amount of new material that has not been available
2 to the public for much time, the Commission is
3 extending the due date for written comments from
4 the 25th of February to the 1st of March.

5 At this time, I'd like to go over the
6 agenda and the format for the workshop. I think
7 most people here and those of you on the Webcast
8 have access to the agenda, but let me quickly
9 review.

10 This morning is going to be pretty
11 heavily devoted to presentations, first by the
12 Commission Staff, with an overview of the issues;
13 and secondly, then our contractors will be
14 presenting their material.

15 That, we presume, will take us about up
16 to lunch time. And after lunch, we intend to have
17 a public/stakeholders' question and comment period
18 on the contractors' presentation, and that comment
19 session has been broken into six categories that
20 closely follow the presentation, as I understand
21 it, of the contractors' work.

22 The first is Gasoline Demand Forecast.
23 The second is Supply of Gasoline and Components.
24 Third is the Impact of MTBE Phase-Out. Fourth,
25 Evaluation of Potential Alternative Sources.

1 Fifth, Barriers to Supply. And finally, a
2 discussion of Alternative Solutions.

3 Those of you here in the room have
4 access to, and perhaps received on the table as
5 you entered, or if you haven't, there is on the
6 table a form where you can express your interest
7 in asking questions on the consultants' report,
8 and you can indicate which of the six categories
9 you would like to make comments or ask questions
10 in. And after lunch, we will try to break the
11 issues down into these six groups and address them
12 one at a time, and have folks perhaps come to the
13 table here to address those issues.

14 Those of you participating via the
15 Webcast will have access to this form, and will
16 have an opportunity to return the form to the
17 Commission to indicate your questions that we will
18 try to get to. Following that, while I hope that
19 we will address all the public's interest and
20 concerns in the session with the six subject
21 areas, following that, at the end we will have an
22 opportunity for any other public comment. And
23 then lastly, wrap-up and closing remarks.

24 We are scheduled to be here all day, if
25 need be, or as long as it takes. That will, the

1 ending of this workshop will be dictated by the
2 amount of -- the number of questions and the
3 amount of discussion we have this afternoon. And
4 at that time, we'll have a wrap-up and closing
5 remarks and conclusions.

6 Pat, did you want to reference for those
7 people listening how they can access this form and
8 how they can provide it to the Commission?

9 MR. PEREZ: Okay. Thank you,
10 Commissioner.

11 For those of you who are listening live
12 today on the Webcast, if you have comments that
13 you would like to send to us, please send them to
14 Public Access, at energy.state.ca.us, and we will
15 enter those into the record and try to respond to
16 them today, if possible.

17 COMMISSIONER BOYD: Okay. With that, I
18 think we're prepared to move into the agenda, and
19 the first item on the agenda is an Overview of
20 Issues, to be presented by Gordon Schremp, Senior
21 Fuels Specialist with the Commission Staff.

22 MR. SCHREMP: Good morning, and welcome,
23 everybody. As Commissioner Boyd introduced me, I
24 am Gordon Schremp. I've been with the Energy
25 Commission about going on 12 years now. I am the

1 Senior Fuels Specialist in the Fuels Office, and
2 have focused the majority of my time on issues
3 affecting the supply and availability of gasoline
4 and other petroleum fuels in California.

5 A little bit of housekeeping before I
6 get going on my presentation. First is that we do
7 have some -- two sets of restrooms located on the
8 lower level, directly behind us, as well as past
9 the stairwell. So that's for your information.

10 And I also wanted to set the record
11 straight about the workshop being delayed. I was
12 not skiing on Friday. I was actually playing
13 golf, so that's why it was --

14 (Laughter.)

15 MR. SCHREMP: But seriously, this, as
16 Commissioner Boyd noted, this is a very important
17 workshop, extremely important subject material,
18 and it is a Committee Workshop involving the
19 presence of at least one of our Commissioners.
20 Commissioner Moore, who was with the Commission
21 until recently, has been replaced. His term was
22 expired, and Commissioner Boyd was appointed. And
23 unfortunately, Mr. Boyd was not available for the
24 Friday workshop as originally scheduled.

25 So here we are today, and that is the

1 reason behind the rescheduling, and apologize for
2 any inconveniences that may have put people
3 through who already made travel plans. But
4 welcome today.

5 My comments today will be rather brief.
6 They are introductory in style, meant to set up
7 the presentation by Stillwater Associates to
8 follow in a few minutes, and I will cover the
9 material in general.

10 I have six slides today. The first
11 three slides will cover background, some of which
12 Commissioner Boyd has already touched on. As you
13 all are well aware, the MTBE has been in gasoline
14 for a couple of decades now, primarily as an
15 octane booster in the late seventies, and then as
16 an oxygenate to meet both winter oxy requirements
17 to control carbon monoxide, as well as federal
18 Reformulated Gasoline Programs and California's
19 own Reformulated Gasoline Program as an oxygenate.

20 But, as time went by, potential health
21 concerns were raised. MTBE is a suspected animal
22 carcinogen. Detections were starting to show up
23 in public drinking water wells, and surface
24 waterways, and there was a prediction that the
25 contamination rate in both of these sources would

1 increase and the cost to remediate and replace
2 these public water sources would dramatically
3 increase, as well.

4 There were a couple of studies ordered
5 by the legislature. The California Energy
6 Commission was involved in one of those studies,
7 as was the UC system.

8 Going on to Slide Number 3, now. The
9 Governor did sign an Executive Order in March of
10 1999, phasing out the use of MTBE in commerce by
11 the end of this year, 2002. The Energy Commission
12 was charged to examine the possibility of moving
13 up or advancing that timetable to an earlier date.
14 We concluded in June of 1999 that that would not
15 be feasible, that all the time necessary would be
16 required to meet the deadline initially imposed by
17 the Governor.

18 Subsequently to the Executive Order, ARB
19 passed regulations codifying the phase-out of
20 MTBE, modifying their Phase 2 Reformulated
21 Gasoline specifications to accommodate the change,
22 and also result in a tightening of some of the
23 specification and a slight relaxation of others to
24 accommodate the use of ethanol without any loss in
25 environmental benefits. And those specifications

1 are listed below.

2 Primarily, sulfur going from 40 to 20
3 parts per million; benzene being lowered from 1 to
4 .8 volume percent; aromatics increasing from 30 to
5 35 volume percent, and that is the cap permissible
6 in any blend of gasoline; and distillation
7 temperatures, what we call T50 and T90, and T50 is
8 the point at which 50 percent of the gasoline has
9 volatilized and 50 percent remains as a liquid,
10 and T90, the same. Those temperatures were
11 increased slightly by three and five degrees,
12 respectively. Olefins unchanged in the
13 specifications.

14 Going on to Slide Number 4, my final
15 background slide. In 2001 -- let me back up from
16 that point. In the Federal Reformulated Gasoline
17 regulations, there is a rule that stipulates that
18 all areas containing federal reformulated gasoline
19 must have an oxygenate in their gasoline. And
20 oxygenates are just a type of compound that does
21 have oxygen within them, and those can be alcohols
22 and ethers. And the best known ethers are,
23 obviously, MTBE, Methyl Tertiary Butyl Ether, and
24 best known alcohol is Ethanol. And both of those
25 compounds contain oxygen. And at two eight

1 percent, the minimum requirement in federal
2 reformulated gasoline, you have to have about 5.7
3 percent by volume in ethanol, and about 11 percent
4 by volume in MTBE.

5 Well, that regulation, or that portion
6 of the federal regulation, holds sway in
7 California, as well. We have our own reformulated
8 gasoline regulations, but 70 percent of the state
9 does fall within a federal reformulated gasoline
10 region, and that percentage will increase with the
11 redesignation of the southern portion of the San
12 Joaquin Valley. So we expect by 2003, 80 percent
13 of the gasoline, at a minimum, will require the
14 use of an oxygenate, unless, of course, this
15 waiver is granted to California.

16 But as you can see in the graphic, the
17 first bullet on Slide Four, US EPA denied the
18 request by California to be granted a waiver from
19 this requirement. And as we have done in some of
20 our previous economic refinery analysis, we
21 believe that the failure to issue a waiver will
22 cost California consumers at least three cents a
23 gallon, and that translates into about \$475
24 million per year.

25 The California Air Resources Board then

1 subsequently sued US EPA to obtain a waiver, and
2 that suit was filed on August 13th of 2001. And
3 the Energy Commission, in 2001, also initiated two
4 studies, both spurred by the legislature, AB 2098
5 and AB 2076. And the first is to look at a
6 strategic fuel reserve, and the second is to look
7 at a pipeline going from Texas to California.

8 We will be conducting public workshops
9 of both of those subjects in March. March 13th
10 will be for the strategic fuel reserve, and March
11 14th will be for the pipeline study. We
12 anticipate having written materials available ten
13 days in advance for both of those public
14 workshops.

15 Slide Number Five. As we see the main
16 elements necessary to have in place for a
17 successful transition away from MTBE to Ethanol,
18 are the following.

19 Supplies of Ethanol certainly must be
20 adequate to make that transition. Then you have
21 to be able to move the Ethanol from the points of
22 production, which are primarily in the midwest of
23 the United States, to California, by both rail and
24 marine vessel. Then you have to have the refinery
25 modifications completed to not only handle the

1 logistics of Ethanol and the blending, but also to
2 be able to meet the different specifications
3 adopted by the Air Resources Board, known as Phase
4 3 Reformulated Gasoline.

5 The fourth important item is adequate
6 supplies of gasoline and blending components. As
7 you'll see in the following presentation, we're
8 estimating that there will be a decline in the
9 production capability of California refiners as a
10 direct result of the phase-out of MTBE.

11 The fifth and final important element
12 for a successful transition is the ability to
13 handle all those anticipated imports, both in
14 terms of their volume, as well as being able to
15 segregate what we anticipate being several
16 different types of blending components coming into
17 California. And by successful transition, I have
18 a definition up here that this occurs without
19 disruption to the market and minimal impact on
20 consumers and the economy.

21 On to Slide Number Six, now. When we
22 did work back in 1998, the final two elements we
23 concluded that there were actually, we thought,
24 plentiful supply of blending components, primarily
25 in the form of alkylates, a very clean blending

1 component desirable by California refiners. And
2 we also concluded that the infrastructure would be
3 adequate to handle the receipt of these increased
4 imports into California.

5 But both of these findings appear to be
6 incorrect, in light of new information. And that
7 new information has come about as a result,
8 directly as a result of our work involved with the
9 Strategic Fuel Reserve and the Pipeline Studies I
10 mentioned a minute ago. The purpose of the
11 workshop today, as Commissioner Boyd has pointed
12 out, is to focus primarily on the two remaining
13 elements of a successful phase-out; namely,
14 adequacy of gasoline supplies and the
15 infrastructure to import them.

16 My final slide, Slide Number Seven. New
17 information has come to our attention, as I
18 mentioned, as a result of those two studies. And
19 we believe this new information has compelled
20 different conclusions and a direct bearing on the
21 phase-out of MTBE. And the issues raised by the
22 contractors for those two studies is extremely
23 relevant and important, and so important to
24 warrant the public workshop we're conducting
25 today.

1 And once again, to echo Commissioner
2 Boyd's desire, and that is to have this workshop
3 solicit comment from the public and interested
4 stakeholders, to critique the findings that we're
5 presenting today.

6 I thank you for my attention, and I pass
7 the dais back to Commissioner Boyd.

8 COMMISSIONER BOYD: Thank you, Gordon.

9 With that, now I'd like to call upon the
10 contractors for their presentation on the impact
11 of MTBE phase-out. Gentlemen.

12 Mr. Steve Hackett is -- Dave. Excuse
13 me, Dave. Is going to lead this off. And I'll
14 leave him to introduce his cohorts as you go
15 through your presentation.

16 MR. HACKETT: Thank you, Commissioner
17 Boyd.

18 Commissioner Boyd, CEC Staff, ladies and
19 gentlemen here at the workshop, and for those of
20 you out there in the ether, thanks for coming to
21 our presentation today.

22 I'm Dave Hackett, with Stillwater
23 Associates. And today we're going to talk about
24 gasoline. We're going to talk about gasoline
25 supply and demand. I'm going to use that outlook

1 on supply and demand to set the stage for our view
2 on the impact of the MTBE phase-out. We'll
3 discuss an evaluation of potential alternative
4 sources. We'll take a hard look at barriers to
5 supply, and then we're going to have a discussion
6 of alternative solutions.

7 So, what brought us here today? Well,
8 in 1999, there were a number of unscheduled supply
9 disruptions on the refining scene which resulted
10 in price spikes, and that led to an Attorney
11 General of California task force. That task force
12 had a series of recommendations which included a
13 study on a Strategic Fuel Reserve, and on Pipeline
14 Supplies from the US Gulf Coast.

15 Stillwater Associates was awarded the
16 contract to do the Strategic Fuels Reserve Study.
17 Stillwater is a Downstream Consulting company
18 headquartered in Irvine, California.

19 Sort of a bit of background, our
20 associates here today include Greg Haggquist, who
21 was a long-time trader in this market, and one of
22 the founders of Mico. We also have Thomas
23 Gieskes with us today. Thomas is a 20-year
24 veteran of Arco. And then my oil career was with
25 Mobil, where I was the Trading and Distribution

1 Manager during the introduction of MTBE blending
2 for oxygenated gasoline in 1992, for the phase-in
3 of CARB diesel, and then for the transition to
4 CARB Phase 2 gasoline.

5 With us today, also, is Drew Laughlin.
6 Drew is an experienced trader and gasoline
7 blender, and he brings to this meeting the
8 perspective of an experienced gasoline person from
9 the US Gulf Coast.

10 We started our Strategic Fuel Reserve
11 Study with extensive stakeholder meetings. I
12 think we talked to more than 50 different
13 companies and organizations and individuals, many
14 of whom are in the room here today. And from that
15 series of stakeholder meetings, we got a very
16 comprehensive view of the California gasoline
17 market, not only the California market, but also
18 the regional market, because, of course, the
19 refineries in California supply Arizona and Nevada
20 extensively, as well.

21 And from those meetings and our look at
22 the data, we came to conclude that the MTBE phase-
23 out was going to be an issue. We presented that
24 to the Staff, and the Staff agreed that the MTBE
25 phase-out needed to be a separate study and fast

1 tracked.

2 Rather than -- now I'm on Slide Four.
3 I'll take you to the conclusions, first, and so
4 you can see why we're here, and then we'll build
5 the case behind these.

6 The California market is insular. That
7 is to say it's geographically distant from a --
8 geographically isolated from the rest of the
9 country, from a fuels perspective. The
10 specifications for fuels out here are unique in
11 order to meet the requirements, the clean air
12 requirements of the State of California.

13 The market, the demand for fuels and
14 gasoline have grown, and grown to the point where
15 the logistics to bring in additional fuel are
16 constrained, and then the market is fractured and
17 there are significant commercial barriers to
18 imports.

19 Insularity also causes market
20 instability. Very small problems, supply
21 disruptions, will cause major price spikes. We
22 were here in Sacramento in August, doing a
23 stakeholder meeting, when one of the refiners had
24 an upset and the prices, the spot price moved 18
25 cents in the few hours we were in the meeting.

1 So, and because of the distance and the fuel
2 specifications, and the constraints, it's tough to
3 get additional supplies into the market.

4 We think that the MTBE phase-out will
5 aggravate this existing situation because supply
6 will be five to ten percent short. Our analysis
7 of the market, looking at historical factors and
8 economic indicators, tell us that that's likely to
9 increase the price of gasoline by 50 to 100
10 percent.

11 So, with that, let's go to the Gasoline
12 Demand Forecast.

13 MR. GIESKES: Thank you, Dave.

14 Commissioner, ladies and gentlemen, good
15 morning. My name is Thomas Gieskes. It is my
16 privilege to walk you through much of the detail
17 behind this very interesting study.

18 I will start with the demand situation.
19 Gasoline demand, as you know, is driven by a
20 number of underlying growth factors. One of those
21 is the population growth, and for this study we've
22 relied heavily on a recently completed paper by
23 the CEC, which provided a base case scheduling
24 demand scenario for California.

25 In that study, the growth of California

1 over the past couple of years, the past decade,
2 has been around two percent per year. We've
3 assumed that this will come down to about 1.4,
4 still a very significant population growth
5 percentage.

6 California, as you all know, also
7 supplies gasoline to some of the neighboring
8 states, and in those neighboring states there are
9 some population centers, like Las Vegas and
10 Phoenix, Arizona, that have shown past population
11 explosions of five percent or more. We've assumed
12 that those will come down to the range of two to
13 three percent. But that's a very significant
14 portion of the southern California gasoline
15 supplies.

16 Population density and urban sprawl.
17 California growth is currently, I think, the
18 number second worst state in the nation in terms
19 of urban sprawl. The distances between work and
20 living locations of people will continue to
21 increase, driven by the exploding housing market
22 in southern California, in particular. This means
23 that people will have to travel more miles between
24 home and work.

25 Fuel affordability, and I know that one

1 of the purposes, the things that we want to
2 prevent here, is that California gasoline prices
3 will rise much above the rest of the nation. But
4 fuel, as a whole, in terms of cost i dollars and
5 corrected for inflation, eventually come down
6 significantly -- have actually come down by about
7 30 percent over the past 20 years.

8 Vehicle miles traveled, which is a very
9 important measure, have actually gone up over the
10 past decade by about three percent per year.

11 We've assumed that this will come down to 1.9
12 percent per year, which is fairly optimistic in
13 terms of what this might do to demand forecast.

14 Fuel economy. The advent of the -- and
15 ever-increasing popularity of SUVs has meant that
16 while fuel economy of cars have been improving
17 since the 1970's, that improvement has now
18 effectively come to an end, and the average fuel
19 economy has worsened since the last couple of
20 years.

21 Now, all of these factors,
22 unfortunately, are not going to change much in the
23 short term. Long term, there could be impact of a
24 -- a much improved fuel economy in cars in a time
25 span of, say, four, five, or six years out. None

1 of that is really coming to bear. So the forecast
2 that we've assumed, the base case is the 1.6
3 percent of the California Energy Commission study,
4 and our variations around that came up with about
5 half a percent of increase or decrease, depending
6 on economic scenarios.

7 So on those economic scenarios, the
8 current market indicators are that gasoline demand
9 is not decreasing notably; that the first nine
10 months of last year actually saw an increase of
11 more than two percent, and that the impact of 9/11
12 has not significantly reduced gasoline demand.

13 I mentioned before, and I'm on to Slide
14 Eight now, and this is a rather complex graph.
15 This graph shows the demand in thousands of
16 barrels per day, looking forward from 2000 to
17 2010, and this is by region, for northern
18 California and southern California separately.

19 And what is shown here is superimposed
20 on this basic California in state demand. The
21 demand in the neighboring states that are supplied
22 from the respective refining centers in the Bay
23 Area, for northern California, and southern
24 California from the LA Basin. And as you can see,
25 the demand in Oregon and the demand in Arizona are

1 fairly significant additions to the California in-
2 state demand. And in our base case forecast, we
3 have assumed that that demand will be sourced from
4 elsewhere due to various factors.

5 The Oregon supplies are likely to be
6 sourced from elsewhere. Oregon will become a
7 foreign import dependent, for those quantities
8 currently sourced from California if, indeed, as
9 we expect, some of the refining capacity in the
10 Bay Area will convert existing conventional
11 gasoline capacity to the CARB Phase 3
12 specifications.

13 And Arizona envisions the advent of a
14 pipeline that will be discussed in more detail
15 later on, but this would be a pipeline, the
16 Longhorn pipeline, extending to -- from El Paso to
17 Phoenix, and then being looped to provide
18 additional capacity. That will replace these very
19 significant volumes going into Arizona, and that
20 does free up more volumes that would then stay
21 within southern California itself. So this is not
22 really an additional supply, but is demand that
23 will hopefully go away.

24 If not, then, indeed, these neighboring
25 states could provide a significant upside to

1 demand if these states do not find alternative
2 sources.

3 Let's take a look now at supply, and I'm
4 moving on to Slide 10. Here, we see an evolution
5 of utilization of refining capacity in California
6 over the period 1982, shortly after the
7 deregulation of the market, to 2000. And it shows
8 the capacities of fuel oil, diesel, jet fuel,
9 gasoline, and then the white bar on top is the
10 unused capacity at each of those points in time.

11 What this chart shows is two things.
12 Increasing conversion, a shift from fuel oil to
13 gasoline production, a deeper conversion into the
14 barrel over the years, and also a rationalization
15 where successively smaller refineries that could
16 not economically convert to, say, the -- the green
17 fuel requirements, have closed down successively.
18 Right now, there is about five percent spread --
19 in the system. That is very, very close to the
20 maximum that you can expect complex installations,
21 such as refineries, to run.

22 So the bottom line here is that the
23 California refinery runs and the gasoline
24 production currently are max'd out.

25 Since 1990, and this is moving on to

1 Slide 11. Since 1990, the refiners have spent an
2 estimated \$5 billion -- if there are people in the
3 audience who have a better number, then we would
4 gladly accept it, but this was our estimate -- of
5 some of the refinery investment. But most of that
6 investment has gone towards regulatory compliance
7 issues, rather than capacity increases.

8 So the crude run capacity, and this is
9 the amount of crude that's processed in the
10 refineries, has stayed virtually flat over that
11 period. The net gasoline production increased
12 considerably, as we saw before, but that is also
13 largely due to import of blending components such
14 as MTBE. And currently, many of the refiners --
15 and this came out of the stakeholder meetings that
16 we've conducted with about 54 or so industry
17 participants -- many of the refineries currently
18 are up against the restrictions as they are
19 contained in their Clean Air Act amendment, Title
20 5 operating.

21 And under the current restrictions, the
22 industry is only capable of supplying half the
23 supply growth. So what's really happening here is
24 that imports offer an easy way out, both for the
25 state as a whole, and for the industry, as such.

1 Now, I've been told that the word
2 capacity creep is a sensitive issue in the
3 industry, so we shall call this a gradual increase
4 in effective production. If we look at the
5 underlying trend -- and this is moving on to Slide
6 12 -- these are the weekly reported gasoline
7 production numbers for the State of California.
8 And besides a slight seasonal swing, which shows
9 that most refineries take advantage of the winter
10 lowered amount season to do their scheduled
11 maintenance, the underlying demand growth here is
12 about 1.6 percent per year -- or, sorry, supply
13 growth. And most of that, however, or a
14 significant part of that, is due to increased
15 imports of blending components by the refiners
16 that then blend those into a final finished
17 gasolines.

18 The one percent of in refinery increases
19 is due to small projects, better operating
20 conditions, improved -- these are just the smart
21 things that people will do in refineries all the
22 time. We have assumed that this capacity will
23 continue at the one percent rate, despite the
24 feedback from the industry that this may be
25 difficult. Once again, this is an assumption, an

1 underlying supply assumption that's on the
2 conservative side, and that we rather overestimate
3 the supply than underestimate it.

4 But the long and short of it is that
5 California has become increasingly import
6 dependent. And I'm moving on to Slide 13 now.
7 This slide shows, on the left-hand side, the crude
8 oil imports, maritime imports, and on the right-
9 hand side, product imports. And why is it
10 important while we talk about gasoline and MTBE
11 also to bring up crude oil.

12 As you can see in this slide, there is a
13 very marked shift, because of the declining
14 production of Alaska of ANS crude oil. There is a
15 very market shift in imports and crude sourcing
16 towards foreign imports. These foreign imports
17 come in at much larger vessels, the LCCs, require
18 more tankage to handle, and put an additional
19 strain in general on the logistic system for
20 petroleum products.

21 The product imports themselves, we see a
22 very sharp increase in 1999, and this was due in
23 part to refinery problems that will be discussed
24 in more detail, and then stayed at a fairly high
25 level since. And as you can see, most of the

1 imports are all from -- this entire increase in
2 imports in petroleum products is from foreign
3 sources, rather than domestic sources.

4 So the increasing import dependency of
5 California for both its crude oil from foreign
6 sources, and for its products, is something that
7 will play a role throughout this presentation.

8 This is a breakdown -- and this is
9 moving on to Slide 14 -- of those product imports
10 that we saw in the previous graph on the right-
11 hand side, broken down by product type and by
12 origin. Anything that is solid is from a US
13 domestic source. The shaded areas are the foreign
14 import of gasoline and components.

15 As you can see, MTBE, which is the top
16 bar, is a very, very significant part of the total
17 gasoline imports. The other thing to note here is
18 that whereas in the early nineties and up to '98,
19 actually, California was still a net exporter of
20 some petroleum products, not only distillates.
21 That has now completely disappeared. California
22 is now a net importer for all its petroleum
23 products, from jet fuel, which has shown a very,
24 very fast growth, to gasoline and diesel.

25 And the other thing, as I pointed out

1 before, is that the increase in imports is almost
2 entirely due to imports from foreign sources,
3 rather than from other west coast states or the US
4 Gulf Coast.

5 Within the gasoline component imports,
6 and gasoline components include, for the purpose
7 of this presentation the oxygenates -- this is
8 moving on to Slide 15 -- we can see that MTBE is
9 by far and large the -- or oxygenates, in general,
10 with MTBE, is well over 90 percent of those
11 oxygenates, is the largest imports product within
12 the gasoline pool.

13 Now, how does this all translate in
14 actual flows within California and its neighboring
15 states, these import numbers, and this is based on
16 port statistics that we've obtained from the US
17 Army Corps of Engineers, as well as EIA and CEC
18 data. But on Slide 18, you'll see a map of
19 California with a number of flows, streams in and
20 out of the state. The foreign imports, and that
21 is shown as Number 1 and 2, are predominantly
22 directed towards the LA Basin. A smaller, much
23 smaller stream ends up in the San Francisco Bay.

24 The Bay Area is actually still a net
25 exporter of fuels. So in the Bay Area, we see a

1 very considerable stream of shipments, that is
2 number 5, I think that's all here, but it's about,
3 well, we think almost 25,000 barrels a day that
4 are currently still shipped from the Bay Area up
5 to Oregon, to Portland. And a similar stream is
6 shipped from the Bay to LA. There are other
7 refiners that balance their internal refining
8 capacity and ship products from their refineries
9 up in Washington State, once again, to the LA
10 Basin. And then it's a good point to talk about
11 those shipments from California into the
12 neighboring states.

13 Northern Nevada, it shows by a pipeline
14 from the Bay Area into Reno. Southern Nevada it
15 shows by a pipeline that comes out of LA, and goes
16 up to Las Vegas. And then there is pipeline that
17 brings product to Phoenix, can deliver product as
18 well to Tucson in southern Arizona. And then
19 here, you see -- and this is on the bottom of the
20 graph -- coming in as a dotted line, this is the
21 Longhorn Pipeline, which is expected to reach El
22 Paso, Texas, sometime later this year or early
23 next year.

24 This is a project that has been on the
25 books for quite a while. It took over six years

1 to overcome some permitting hurdles, but it's
2 currently slated for completion to El Paso. From
3 there on, this pipeline from El Paso to Tucson,
4 Arizona, which is currently in the Longhorn
5 Pipeline which is currently pro rated, that is to
6 say there is more demand for capacity than there
7 is actually actual capacity on the line, to supply
8 from El Paso on this Longhorn Pipeline additional
9 products into Arizona, would take a looping, or
10 doubling of this pipeline, as it's called, and
11 that could take a -- that project has not been
12 permitted yet, and that could take, in our best
13 estimate, until late 2005 or early 2006 to
14 complete. So that is what underlies that
15 assumption that Arizona demand at some point in
16 time will disappear from -- as an -- a supply
17 obligation from the California refiners.

18 What is really important to note is that
19 the -- most of the import streams to maritime
20 imports are all directed towards Los Angeles,
21 towards the LA Basin. And the Ports of LA and the
22 Port of Long Beach are really the main import
23 centers for petroleum products in the state.
24 Which is unfortunate, because this is also where
25 most of the congestion and most of the problems

1 occur, as we shall see later.

2 So the summary of the current supply
3 situation is that the refineries are running at
4 maximum operating rates, that for the complexity
5 and the age of the installations they're really
6 doing quite a good job, and that compared to other
7 commodity industries of similar complexity, the
8 operating rates are really very, very good. And
9 that's while running flat out, it's very difficult
10 after an unplanned outage or another supply
11 disruption to rebuild advantage.

12 The opportunities to increase capacity
13 are diminishing. We have talked about the
14 permitting restraints and the difficulty of
15 obtaining emission credits, and we've seen that
16 all these shortfalls have to be made up by
17 imports. And we'll talk later about the
18 availability of domestic and foreign imports in
19 great detail.

20 I'm moving on to Slide 18 now. As
21 the -- it shows the final slide on the supply
22 situation. This is a very, very important slide.
23 What this shows is the price differential between
24 the California gasoline price and the US Gulf
25 Coast, which is the main refining center in the

1 United States, and a very, very good market price
2 for gasoline in general. And it shows the price
3 in cents per gallon from 1990 through current.

4 And as you can see, there is a
5 underlying trend here that is gradually moving
6 away. California gasoline prices are gradually
7 moving away from the bay. But much more important
8 is this increase in instability here. This type
9 of volatility, this trend in any curve, you do not
10 have to be an expert to recognize that, as we say,
11 Houston, we have a problem.

12 And it is this. Current problem in the
13 supply situation of gasoline to California that
14 leads us to believe that the problems will grow
15 far worse once MTBE is phased out. If you
16 currently had an adequately supplied market that
17 was stable, that had sufficient import streams
18 coming in, and you would superimpose the MTBE
19 phase-out on top of it, you would still have a
20 considerable logistical challenge. But the
21 problem, as we see it, it's the logistics to it,
22 is that there currently is clearly that here are
23 supply restraints at work. The -- in 1996, when
24 this price spike occurred, this was actually when
25 the CARB -- this was in the summer that CARB Phase

1 2 was first introduced, this price spike here
2 still saw the mobilization, as we will see later
3 on, of about 50,000 barrels per day in equivalent
4 capacity being shipped out of the US Gulf Coast
5 into California.

6 Currently, despite much greater price
7 differentials, both underlying and price
8 differentials in the spikes, the supplies out of
9 the US Gulf Coast into California are only 11 or
10 12,000 barrels a day. So there is a clear
11 disconnect currently between the US Gulf Coast as
12 a gasoline supply market into California, and the
13 California market itself.

14 Okay. What is MTBE going to do on top
15 of all this? And I'm moving on now to Slide 20.
16 As Gordon has already pointed out, what does it
17 take to successfully implement a phase-out of MTBE
18 and a full resolution of the ethanol supplies and
19 logistics. That is identification of whatever it
20 takes to replace the shortfall that will result
21 after the phase-out of MTBE, and finding workable
22 logistics solutions for each of the alternatives.

23 We have assumed that ethanol is
24 available. We believe that ethanol sources can be
25 mobilized to reach California. We also believe

1 that the logistics of bringing the ethanol to the
2 California truck racks are far from easy, and that
3 there will be problems once ethanol will be coming
4 in.

5 So the CEC carried out a fairly
6 extensive study last year. The conclusion is that
7 ethanol is available, or can be made available
8 away from current demand by year-end 2002.
9 Logistics, as I said, there are still many, many
10 unresolved issues, the unit train off-loading, the
11 storage tanks at the distribution terminals are
12 scarce. The rail is still questionable to --
13 especially in the wintertime, supply those
14 essential volumes. And a significant portion of
15 that might have to be transported by ships after
16 all. And the way to transport them, that portion
17 of the ethanol that would come in by ships, inland
18 is also not yet resolved.

19 And we believe that the uncertainty,
20 because a possible postponement of the phase-out
21 has been rumored in the industry for about half a
22 year now, has -- might have led to project delays
23 on some of these projects. So while we believe
24 that some problems will almost be unavoidable if
25 ethanol gets introduced, these problems tend to be

1 local, and although the logistics might be ugly
2 and you might have to rely on trucking more than
3 you would like to, all that can be resolved.

4 So, moving on now to Slide 22. The
5 current MTBE balance, how is MTBE currently being
6 used. And this is a split between northern
7 California and southern California, but let's
8 focus on the total numbers.

9 First, there is over 935,000 barrels a
10 day of RFG production. We think there is about
11 110 of that is currently already ethanol based.
12 That leaves 825 of CARB RFG that requires MTBE
13 blending. In addition, there is some Arizona,
14 some of them aren't at the 11 percent blending
15 ratio that would apply, that's currently about
16 94,000 barrels a day of MTBE are used.

17 If we look at the import statistics and
18 current production, we come to a total supply of
19 MTBE of about 102, which means that there is an
20 excess of about eight MTBE, predominantly in the
21 southern California refining center.

22 So what really is happening here, that
23 over and above the oxygenate requirement, and MTBE
24 is currently the refiners' mother little helper
25 more often than not. If there is a quality

1 problem or a volume problem, you can always extend
2 the gasoline with MTBE if you have it available.
3 That, too, will disappear at the phase-out.

4 So the impact of the phase-out is that
5 that 102,000 barrels a day of MTBE will go, and
6 I'm on Slide 23 now. You will add back in about
7 55,000 barrels a day of ethanol, and this is based
8 on the entire state converting to ethanol. And
9 for reasons of, say, product segregation you don't
10 want to have two qualities of gasoline, so our
11 estimate is that the entire California market will
12 convert to ethanol, even where the oxygenate is
13 not required.

14 To maintain vapor pressure within the
15 specification limits, you have to remove butanes
16 and pentanes, that will take out about 46,000
17 barrels a day, and then there are other losses
18 within the refineries that add up to about 10,000
19 barrels a day, and that is to maintain the
20 distillation regs.

21 There is some capacity compensation.
22 All these numbers are based on the CARB Phase 3
23 compliance plans, as submitted by the refiners.
24 We at Stillwater have not seen the details of
25 that, but we've seen the numbers only in their

1 aggregate form. And there is a one major refinery
2 project that's the conversion of current
3 conventional gasoline into CARB Phase 3. Then
4 there are a number of smaller projects, some
5 conversion of MTBE into alkylate, that's on the
6 books. We've added in the capacity creep of one
7 additional year at one percent. And then in their
8 CARB Phase 3 compliance plans, certain refiners
9 had already identified additional foreign imports.

10 So those numbers are in there, and the
11 long and short of it is that the state would be
12 short by 56,000 barrels a day in the base case
13 scenario.

14 What is really important to note is that
15 most of this shortfall is occurring in southern
16 California, so this is a very lopsided shortfall.
17 The Bay Area is going to be short by about 9,000
18 barrels a day. The LA Basin refining center will
19 be short by about 47.

20 And moving on now to Slide 24. Slide 24
21 shows how this shortfall plays out over time. And
22 this is, in the first instance, the -- for
23 California RFG alone, so this does not include
24 Arizona and Nevada. The historical numbers up to
25 2001 show in green, in light green, that's the

1 bottom part of the bar, the current production in
2 the refineries. Then there is a certain import
3 that's the white section, that shows the current
4 imports of blendstocks, excluding MTBE. A slight
5 yellow part here is the current conjunction of
6 ethanol. And then the big red bar on top is MTBE.

7 So is MTBE is phased out by year end
8 2002, as is currently foreseen, then that big red
9 bar disappears. The ethanol goes to about 55, and
10 we are short, and this is the gap between the base
11 case curve and the top of the ethanol, by about
12 56,000 barrels a day.

13 What is important to note is that that
14 shortfall can quite rapidly increase to 100, or
15 even 140,000 barrels a day in case demand is not
16 slowing down to 1.6 percent per year. But if the
17 economy in California, which we all hope, sees a
18 rapid recovery, then this red line of 2.1 percent
19 is a much more likely demand curve, and then
20 California would be short by up to 100,000 barrels
21 a day.

22 Some of the underlying supply
23 assumptions behind this graph, and this is now on
24 Slide 25. As I said, we've assumed the California
25 refineries to -- the production to increase as per

1 the CARB Phase 3 compliance plans. We have not
2 assumed that CENCO will ever re-start. That's the
3 former Powerine Refinery, which is currently
4 slated for demolition.

5 The refinery projects in the Bay Area
6 will result in conversion of about 23 or 22,000
7 barrels a day of conventional into CARB. A
8 further 22 or so thousand barrels a day of
9 production might be available in the future in the
10 Bay Area, if the gasoline prices indeed go to
11 fairly high levels, and will justify additional
12 investment.

13 Like I said, ethanol will be blended
14 into all gasoline in the state, and that is how we
15 found out, came to that number of 55. And the
16 pipeline capacity that will come onstream and will
17 be extended, we hope, from El Paso to Phoenix by
18 2006, and will then replace all gasoline supplied
19 from California to Arizona.

20 Now, this is moving on to Slide 26. A
21 more detailed look into how this supply shortfall
22 plays out between northern California and southern
23 California. So here, once again, the bars are
24 showing the production. The areas behind the bars
25 is the underlying demand. Northern California, as

1 we can see, and this is, once again, in thousand
2 barrels a day, northern California is going to be
3 short a little bit. That's the, this slight
4 differential between the top bar, in the top of
5 the bar in 2003, to the underlying demand curve,
6 and that shows about a shortfall of nine.

7 And in southern California, we see a
8 much greater gap between the top of the supply
9 curves and the total supply for Arizona, Nevada,
10 and then California as the underlying large area
11 in light blue.

12 So this will leave southern California
13 severely import dependent, with that final
14 pipeline project still uncertain, but currently,
15 we hope, slated for 2006. So this area here, in
16 the graph on the right-hand side, where it says
17 increasing import gap, that is primarily the
18 source of our concern.

19 So what would a shortfall of 50 to
20 100,000 barrels a day do to gasoline prices in
21 California. Well there is an awful lot of
22 studies, market studies that have been conducted
23 in the past on gasoline prices, the -- that is
24 commonly known that gasoline has a very, very
25 small price elasticity in the short term. There

1 is a little bit more elasticity in long term,
2 because it takes that long for fleets to renew,
3 for more fuel efficient cars to emerge, for people
4 to shift commuting patterns, or for population
5 patterns to change when people do not move out of
6 their work locations if the fuel prices are too
7 high.

8 But the short term price elasticity is
9 what we are most concerned about, because if,
10 indeed, MTBE were to be phased out by the end of
11 this year, it is the immediate crunch in the
12 summer of 2003 that would be our concern, and then
13 2004, 2005. So short term price elasticity is
14 indeed a one or two year time span in gasoline.

15 The price elasticity figure that we've
16 used is that of minus .1, which is actually
17 conservative. There are even more severe numbers
18 out there. But what that translates into is that
19 a five to ten percent shortfall in gasoline
20 supplies will increase prices by 50 to 100
21 percent. So gasoline prices could more than
22 double. And there is some historical data in the
23 state to support that conclusion, as well as all
24 the theoretical and empirical market studies that
25 have been performed elsewhere.

1 But, and this is on Slide 28. Here you
2 see 1999. And as I alluded to before, 1999 was a
3 bad year for refiners. There was a series of
4 quite serious refinery outages with some minor
5 refinery outages interspersed in between. So what
6 happened is that this series of price spikes
7 caused a shortage of about 50 to 80,000 barrel a
8 day in 1999. And, as a matter of fact, this was
9 the last serious outage was that of Chevron.
10 Chevron applied for a waiver to supply non-
11 conforming gasoline. That waiver was for about
12 80,000 barrels a day.

13 What this 50 to 80,000 barrel a day
14 shortfall over this period did is that from its
15 base price level, that raised the prices by
16 actually more than double. But if you draw a line
17 sort of a little below the varied peaks, then you
18 will see that effectively sort of doubling of
19 prices occurred over this particular period in
20 1999.

21 There is a similar price graph which is
22 included in the report, which we don't show in
23 this presentation, for the gasoline market in
24 Chicago in early 2000. Also, a five to ten
25 percent shortfall resulted in doubling of prices.

1 So it really is not a stretch of the
2 imagination to see that if, indeed, California
3 would grow about five to ten percent short, we
4 would have to pay approximately \$3 a gallon for
5 our gasoline, this time, however, over a prolonged
6 period, or not until a refinery would come back
7 onstream in six to eight weeks.

8 So it is a quite unprecedented
9 shortfall, because we have never taken this much
10 capacity out of the market over such a long time.
11 This is not something that's been done before.
12 The pipeline expansion, even if it backs out
13 Arizona exports by 2006, would only be sufficient
14 to supply the minimum demand growth scenario, and
15 not the high growth scenario. And, as I said
16 before, a ten percent shortfall means that prices
17 at the pump will go double.

18 The other thing to bear in mind is that
19 if you have a chronic shortfall of gasoline, and
20 you have absorbed that initial price elasticity,
21 which means that people have found ways to reduce
22 their gasoline consumption, such as carpooling, or
23 do whatever it take to reduce your gasoline
24 consumption, cut back on discretionary travel,
25 then you've taken out that initial elasticity.

1 And if then a major supply disruption occurs, such
2 as a major refinery has an unplanned outage, the
3 capability of the market to absorb that is already
4 largely diminished. So on top of the already much
5 higher base prices, you would see a much increased
6 volatility of pricing due to price -- supply
7 disruptions.

8 The question, of course, now is can
9 additional imports be found. And that was, as
10 Gordon pointed out, the basic assumption. When
11 MTBE phase-out was first discussed, it was long
12 taken for granted that additional supplies would
13 be available, notably from the US Gulf Coast. And
14 at this point I will turn it over to Drew
15 Laughlin, who will walk you through the US Gulf
16 Coast supply option.

17 MR. LAUGHLIN: Does that mic work?
18 Yeah.

19 As Thomas said, in Slide 24, the
20 potential for a shortage has to be filled from
21 somewhere. And the original assumption was that
22 it would be filled mostly from the Gulf Coast.
23 There were quite a few assumptions made back three
24 years ago, particularly one that involved the
25 requirement that this gap would be filled by

1 alkylate, particularly propylene alkylate.

2 As it turns out, there is propylene
3 alkylate on the Gulf Coast. As you'll see in some
4 of the future slides here, I'll show you what the
5 problem comes out to be. But we don't segregate
6 propylene alkylate. There is no such thing as
7 propylene alkylate in the Gulf Coast, by itself.
8 It's mixed alkylate. And because of California,
9 the CARB specs out here, particularly ultra-low
10 RVP, ultra-low sulfur, and the narrowly defined
11 distillation ranges in your gasoline, it really
12 changes what we can supply, or the Gulf Coast
13 refiners can supply to the California refiners.

14 Particularly, the ultra-low RVP, and I
15 want to go ahead and explain. Our concern on
16 gasoline supply is much more of a summer problem.
17 We believe you will get through in the winter. It
18 is the low read summer problem, which is
19 approximately eight months out here, that is --
20 that we're most concerned about. The blending of
21 ethanol in the winter is a much easier task than
22 blending it under these ultra-low RVP pressures.

23 California CARBOB specs are going to
24 require approximately a 5.2 or 5.3 RVP, which is
25 lower than anything that's ever been done in the

1 United States, as a blendstock prior to the
2 addition of ethanol. This is a difficult task for
3 any blender or any refiner. Low sulfur
4 requirements of approximately 10 to 20 ppm,
5 depending on your formula and your formulation of
6 your gasoline, are going to be required out here.

7 I particularly want to talk about the
8 distillation ranges, particularly the mid-point,
9 250, at approximately 213 degrees Fahrenheit.
10 This is significantly different than US Gulf Coast
11 specifications, and RFG specifications, and
12 conventional gasoline specifications. Gulf Coast
13 refiners have midpoint ranges that are easily in
14 the 220s, 230s, 240s, even 245, that still are
15 able to make RFG specifications for the rest of
16 the United States.

17 The significance is that the propylene
18 alkylate is the pure fix that replaces MTBE.
19 That's why the study, I think, used propylene
20 alkylate. It can easily be replaced, in that it
21 has all those perfect characteristics of no
22 sulfur, no olefins, no aromatics. If you pull
23 MTBE out, it can just simply be put in, and that's
24 why I think the study two, three years ago, looked
25 at whether propylene alkylate was available and

1 would be available to California.

2 It concluded that propylene alkylate was
3 available in the Gulf Coast. That was correct.
4 But it is not, in any case that I know of,
5 available to be loaded as a segregated product.
6 It is made in conjunction today with mostly
7 butylene alkylate, and the trend may be in the
8 future to be amylene alkylate. The problem with
9 that is that the midpoint on these alkylates that
10 we're talking about are significantly higher than
11 what you counted on. The midpoints at 225, 230,
12 235, are significantly higher. And when these
13 alkylates are brought into your market, have to be
14 re-blended. And I don't think that was originally
15 envisioned in the original study three years ago.

16 Chicago RBOB is real good case. It is a
17 much easier product to make, and they had
18 problems, and have had problems over the past few
19 years. And not just problems associated with
20 refinery outages; problems associated with, first,
21 when they went to CARB -- to Phase 2 gasoline,
22 just learning curve problems. Learning curve
23 problems that California refiners will have out
24 here in, as you shift to summer grade gasoline,
25 much more so than the winter grade.

1 But as you can see, Chicago has had and
2 continues to have problems blending ethanol and
3 making RBOB gasoline. Ethanol requirements means
4 that no finished gasoline is going to be imported
5 into the state, and so I can explain that further.
6 As you know, ethanol is going to be blended, it's
7 splash blended at the rack. In the past, gasoline
8 could come into the state and go straight into
9 your car, if you needed to be certified. MTBE
10 contained gasoline meeting Part 2 specs, it would
11 be able to be consumed right away.

12 Ethanol is not transported in gasoline,
13 usually. It could happen, but it's, because of
14 its water solubility problems, it's not expected
15 to happen. So product will be brought into the
16 state, and whether it's blendstock or possibly
17 CARBOB, and then blended with ethanol before it
18 goes to its final destination.

19 As Thomas said, our ethanol supply
20 disruptions equal gasoline disruptions. Our part
21 of the study really did not harp on whether
22 ethanol would be here. We're counting on it. I
23 mean, that's a given now. And if there is a
24 ethanol supply disruption, it will be a gasoline
25 disruption.

1 Gulf Coast supplies. EIA and DOE data real
2 that as in the Gulf Coast, similar to California,
3 Gulf Coast crude units are essentially at
4 capacity. Our cat crackers are essentially at
5 capacity. Hydrocracking units in the Gulf Coast
6 are essentially at capacity, as are cokers.
7 However, alkylation capacity has lagged, and let
8 me explain this as we go a little further. You
9 can see this is the Gulf Coast crude units, and as
10 you see, the -- the line here is their -- our
11 utilization. We are now, as you are out here, at
12 essentially 100 percent, we're 90-some percent
13 utilization.

14 The same thing with Gulf Coast FCC
15 capacity. We are at and even exceed our calendar
16 capacity. Some of that is refinery creep, and
17 possibly even the Orion Refinery that's -- new cat
18 cracker is up.

19 The same thing with Gulf Coast
20 hydrocrackers. We're at capacity. And let me
21 also explain. Gulf Coast refineries, particularly
22 cat crackers, do not produce a product that is
23 similar to material produced in California.
24 California refineries traditionally pre-treat
25 their product and then treat it afterwards to

1 treat out sulfur and olefins. Gulf Coast
2 refineries don't have those kind of restrictions,
3 so the product that comes out of a Gulf Coast
4 refinery, particularly cat gas or coke or naphtha,
5 is essentially higher sulfur and higher olefins
6 than west coast refineries would use. That
7 material is essentially not used out here, and not
8 available for use in California. Cokers, as I
9 said, the same thing. They're at or reaching
10 capacity, too.

11 This is an important chart. We see
12 trending up on FCC capacity over the last ten
13 years. But the alky capacity, it's flat. What's
14 happened basically here. This is a great product.
15 What the problem is, is that a Gulf Coast refiner
16 was able to make a cheap investment in increasing
17 his cat cracker without having to spend money on
18 his alkylation unit. And the reason was he was
19 able to take his propylene into a higher value
20 chemical market, or take his isobutylene into the
21 MTBE market. So we've had, as a relationship of
22 cat gas and coker gas to alkylate, we have
23 declined substantially a ratio of alkylate to
24 these products.

25 The significance is that as we blend

1 gasoline on the Gulf Coast, the Gulf Coast
2 refiners blend gasoline, they have to consume --
3 this is a relatively dirtier product, as is coke
4 or naphtha. But the availability of alkylate to
5 blend off that product is less. So we need more
6 alkylate, Gulf Coast refiners need more alkylate
7 as a function of using more material, more dirty
8 material coming in.

9 Imports that we've seen into New York
10 Harbor, and into the United States, recently the
11 trend has been we're taking a lot more dirty
12 material in. And what we've -- Gulf Coast
13 refiners and New York blenders do is take
14 available supplies of clean blendstocks, those
15 available supplies that they can find, and blend
16 those up to conventional or RFG standards.

17 As I said, this capacity is lagging, and
18 this is not expected to change. The ability to
19 build an alky unit isn't just the cost associated
20 with the building of an alky unit, but the supply
21 of olefins, which is not expected to increase.

22 Finished gasoline. As we've talked
23 about, Gulf Coast refiners increasingly are having
24 to deal with boutique fuels, and California is
25 basically the most boutique of all markets. But

1 what has happened on the Gulf Coast is a constant
2 barrage of changes in specifications on boutique
3 requirements. These boutique requirements,
4 unfortunately, are coming closer and closer to a
5 quality specification like California. They
6 require more and more of our clean blendstocks.
7 And as these clean blendstocks are going into
8 boutique markets, whether it's the Chicago RBOB or
9 what we now call Atlanta M-Zero, which is a low
10 sulfur market, there's an increasing demand on
11 basically a non-increasing supply.

12 The pricing differentials, whether it's
13 a Texas refinery, an inland Texas refinery, or a
14 Gulf Coast refinery, these differentials basically
15 set up the movement of product, whether it is from
16 the Gulf Coast to New York, or the Gulf Coast to
17 Chicago, or the Gulf Coast to the west coast. As
18 these differentials for any particular area
19 increase, it moves the product around the United
20 States.

21 Alkylate. As we said, California
22 distillation specs require a light alkylate. It
23 seemed simple back then to take a look at the
24 supply of alkylate. But the study also didn't
25 realize that the demand for propylene in the

1 refining sector, that the refineries constantly
2 compete with the chemical market today. The
3 chemical markets, their requirements to use
4 propylene are such that they go up and down with
5 our economy, essentially. The demand for
6 propylene is usually into the chemical market,
7 much -- they can buy it away from their market at
8 any time they choose. Their ability to purchase
9 this product away from refining is unbelievable.

10 Not only, then, do we have a competition
11 for alkylate into boutique fuels and other
12 markets, we have a competition for the feedstock
13 that goes into alkylate, between the chemical
14 business and the refining business. And this is
15 significant, because, as this California demand
16 has competed in the past, last year, 2001, we saw
17 this differential on alkylate to gasoline go up to
18 37 cents a gallon. We didn't expect that to
19 happen for a few years. It had been all only in
20 the 12 and 10, 15 cent range.

21 We also had last year a tremendous
22 amount of propylene alkylate. As you can see
23 right here, this is the first time -- this chart
24 goes back ten years, but I can tell you it goes 20
25 years -- this is the first time that the chemical

1 market was depressed at the same time the gasoline
2 prices were high, and the refining market actually
3 was able to take propylene into the alkylation
4 market. And even with that supply, we were
5 extremely short alkylate on the Gulf Coast in the
6 summer. And again, this is a highly seasonal
7 problem we're going to have.

8 This material is expected to stay in the
9 chemical market as the economy recovers. This is
10 going to reduce the supply of Gulf Coast alkylate
11 dramatically next year. As I said, propylene into
12 gasoline, it really is a rare event. It's not the
13 way it ought to be now.

14 US Gulf Coast supply summary. There is
15 no large surplus of quality material sitting in
16 the Gulf Coast ready to come to California to fix
17 problems. Blenders, traders, there will be
18 positions, and products that will be accumulated
19 to come out here. But it's small, relative to the
20 size of the demand that the California market
21 might require, depending upon the shortfall that
22 might happen out here.

23 There's no producers at this point of
24 CARB 3, or CARBOB 3. Refiners in the Gulf Coast
25 and in the Caribbean, there were at least three or

1 four that we know of, successfully manufactured
2 CARB 2 and transported the product to the west
3 coast. At this point, those same refiners have
4 not stepped forward and said we can do it. We're
5 not sure what they can do, but we don't think they
6 can do it. And if they do it, it will mean a
7 significant impact on RFG production on the east
8 coast.

9 So it is a question of taking from one
10 place and having to be made up in another. And,
11 as I said, this is going to be a bidding deal. If
12 you have to have significant quantity of alkylate
13 on the west coast, or clean, clean blend stocks,
14 you're going to have to buy them away from the RFG
15 market. And then they're going to have to buy
16 them away from you.

17 The supply of alkylate, the prime
18 blending component to replace MTBE, is going to
19 tighten as the economy recovers. Again, this is
20 associated with the propylene issue, as propylene
21 should go back into the chemical market coming
22 back out of the refinery pool. And as I said, in
23 the past, alky prices have been 30 to 40 cents a
24 gallon over gasoline, because of chemical demand
25 for its key ingredient, and because of the demand

1 for boutique fuels.

2 Another problem we have. Even if the
3 product is available, do we have enough ships to
4 bring to the west coast. Movements in the past,
5 Gulf Coast to California movements, have shown, in
6 '96-'97, we had a significant movement of product
7 to the west coast by US Jones Flagships. As you
8 can see, this is the expected 55,000 barrel a day
9 shortfall. The peak in that year, just the peak,
10 only reached that level.

11 We're now talking about the base would
12 be this level. The peak could be well up into
13 here. This far exceeds historic movements of US
14 clean ships to California.

15 Let me explain the US tanker market for
16 a second. A round trip from the Gulf Coast to San
17 Francisco is approximately 44 days. To LA, it's
18 about 42 days. A nominal ship size is about
19 275,000 barrels on a clean US flagship. If we
20 were to use a ship and just go back and forth
21 continuously from the Gulf Coast to the west
22 coast, it would supply 6,000 barrels a day.
23 That's it; 6,000. Therefore, if we're 100,000
24 barrels a day short, you need 16 ships. Doesn't
25 sound like a lot of ships, does it?

1 Unfortunately, the total US fleet of
2 clean ships is 64 ships. These 64 ships are in
3 movements today that are pretty well committed,
4 from Gulf Coast to Florida, or Gulf Coast to New
5 York. Military movements have taken quite a few
6 ships out of service. That's the fleet. And it
7 is diminishing.

8 The majority of these ships are
9 scheduled for retirement under OPA 90. These are
10 basically single hull ships. They are going to go
11 away between 2005 and 2015. We have, I think, 113
12 total ships in the United States' fleet today, and
13 I believe only 13 of those are double hull today.
14 So most of our ships are going to be scrapped in
15 the next -- between 2005 and 2015.

16 In the past, the majors owned the
17 fleets. The significance is that now, because of
18 all sorts of issues, independents now own these
19 fleets. The problem with that is that an
20 independent, in order for him to build a new ship,
21 would require today about a 45,000 barrel a day
22 commitment on a 20 to 30 year basis, to justify
23 the building of a new ship. Our markets when this
24 was written was about 35,000 a day. It's probably
25 a lot lower than that today. It's probably about

1 30, because there isn't anything really moving
2 around to California today.

3 So what's happening? Nothing. There
4 are two ships being built in the United States,
5 clean American flagships. Shipbuilders are afraid
6 to build because they don't think they can get a
7 net back. And if they build, they're afraid of
8 this, the Florida, possible Florida, US Gulf Coast
9 to Florida pipelines, or a Longhorn line, or a
10 Gulf Coast to west coast pipeline. As soon as
11 they announce they're building, takes two to three
12 years to build a ship, they may find themselves
13 with a poor investment if the pipelines are
14 allowed to proceed, or do proceed ahead, making
15 their use of their boats at least reduced, and
16 they won't receive the net back that they require
17 to build their boats.

18 This is what's happening with US
19 flagships over the next few years. This is the
20 retirement schedule, and it's dramatic. As you
21 can see, the problems really start in 2005, and go
22 on from there. We need something other than US
23 flagships, or additional US flagships to relieve
24 the supply situation into California. And as I
25 said, the pipeline will be the most obvious

1 replacement for these ships.

2 As there are supplies to California, if
3 we can bring out, and I truly believe we wouldn't
4 have any problem bringing six to eight ships on a
5 consistent basis, 30, 40,000 barrels a day on a
6 consistent basis. The question is, what is the
7 shortfall. Only time's going to tell, according
8 to what your demand is out here. If the shortfall
9 is in the higher ranges of what we've been
10 discussing, even if the Gulf Coast product is
11 available in the quality that you require, the
12 ships may not be there to bring it, which still
13 isolates you from getting the product in
14 California that California needs to supply, in
15 order to solve their supply problems.

16 This last slide, which is Slide 44, only
17 goes to show that Gulf Coast product is having a
18 continual competition as to whether it moves up
19 the pipeline to New York, or to Chicago, to the
20 mid-continent. Our new Centennial pipeline will
21 take more product to the mid-continent. The new
22 Longhorn line will take product to El Paso, and
23 hopefully out further at some point in the future.

24 The question is, though, is there the
25 right quality product available even to fill or

1 justify building a pipeline to come out to
2 California. We have to have the product in the
3 Gulf Coast in order to supply California refining
4 needs and to your quality material. And as I
5 said, there is a constant competition on this
6 barrel with New York Harbor. Whether to ship the
7 barrel from the Gulf Coast to New York Harbor is a
8 question that refiners, blenders, traders, all try
9 to answer every day.

10 And this situation in the harbor is an
11 international situation where every day it
12 changes. Today, we may have gasoline that's
13 accessed in China or Russia, as the case may be,
14 as we've actually recently seen, and it is not a
15 quality gasoline. As that material makes its way
16 to the United States, it requires a quality
17 blendstock in order to make it either into an RFG
18 or conventional gasoline. That puts demand on the
19 high quality blendstocks that California is hoping
20 to move out to California.

21 What I'm trying to leave you with is the
22 thought that this competition between refining
23 assets, refining sectors, markets, petrochemical
24 businesses and industries, is putting, is really
25 taxing the Gulf Coast's ability to produce this

1 product and put it in as many places as it needs
2 to be. Part of the National Energy Policy, I
3 believe, is addressing the problem of boutique
4 fuels. This is one of these problems. This is a
5 major problem. And if we have additional
6 requirements for boutique fuels, this problem gets
7 worse.

8 Unfortunately, I haven't seen a boutique
9 fuel yet that is a low quality fuel. It is all
10 high quality stuff, and as each municipality tries
11 to work its way around either an MTBE issue or an
12 RFG issue, they have come to find out that they
13 have created specifications without talking to the
14 industry. And the industry is having a hard time
15 meeting all of these particular demands.

16 As I said, California has a huge market
17 for gasoline, but the differences in your supply,
18 in the California specifications, make it very
19 difficult for refiners to bring out product that
20 you're going to need, in the quantities you're
21 going to need it. When product does arrive here,
22 such as this mixed alkylate we're talking about,
23 it will need to be reblended and remade into
24 gasoline. This is all doable.

25 Someone said that we, the consultants,

1 have not taken into account the ingenuity of the
2 gasoline blenders and the refiners in the west
3 coast, and I really believe we have. In fact,
4 we're counting on it. We're counting on the
5 refiners out here are able to re-massage the
6 barrels that come out here and make them into a
7 usable product. What I think the California
8 refiner is counting on, though, is a supply of
9 product in the Gulf Coast that has an increasing
10 amount of competition to it that just might not be
11 there in the volumes that are required to fix the
12 problems that you might have out here. And that's
13 what leads us to have a long term shortage in the
14 market.

15 We're trying to find a way to fill that
16 supply gap that Thomas brought up on Slide 24.
17 It's in filling that gap that, if we can fill that
18 gap, our price increases in California are going
19 to be a lot smaller than we anticipate. If we
20 can't fill the gap, then only demand can be
21 diminished by prices.

22 Let me turn this over, then, to Gregg
23 Haggquist.

24 MR. HAGGQUIST: Okay. Can you hear me?
25 Okay.

1 Thank you, ladies and gentlemen,
2 Commissioner. Ladies and gentlemen, I'm Gregg
3 Haggquist, working with Stillwater Associates.

4 My background is more from the
5 commercial and the trading side of the industry.
6 And from that background, I wanted to take a look
7 at the commercial impact of the MTBE phase-out
8 that we're considering here today. I'll be back
9 up here again a little while later in this
10 presentation.

11 But looking at the commercial factors of
12 this MTBE phase-out is not as highly emphasized in
13 this presentation as it will be in the strategic
14 fuel reserves presentation a couple of weeks from
15 now. But before I talk about foreign, the foreign
16 availability of post-MTBE gasoline into
17 California, just reflecting on what we've done
18 here, building up the image, or the picture of
19 California. And I want to thank the Commission
20 for actually having the wisdom to commission this
21 study, because, as you see, it's a very complex
22 problem that we're dealing with here.

23 I'll go back to the slide that Drew
24 Laughlin just showed us of the pipeline situation
25 in California -- I mean, in the United States.

1 And you can see that, you know, we are kind of
2 skimpy out here. We have kind of a fragile system
3 out here, and people who have traded in this
4 market know that. We know that we're isolated,
5 but we always had enough crude oil, and crude oil
6 is diminishing. Demand is picking up.

7 So what we want to emphasize here in
8 respect to the MTBE phase-out is the isolation of
9 this market. The island economy of gasoline in
10 California. And I'd like to make that a very
11 solid image in our mind, the island economy of
12 California. And I think that can stand up under
13 intense scrutiny. Is it really an island economy,
14 or is it not. And one way to answer that question
15 is to look at how foreign suppliers look at this
16 market, and what do they see.

17 Well, we, in our stakeholders' meeting,
18 have talked to, extensively, with all of the
19 potential suppliers and the actual suppliers of
20 California gasoline today, in the Caribbean, in
21 Canada, in Asia, in Europe, in Finland, as we
22 know. And in each case, none of these refiners
23 are prepared to invest money in order to, as they
24 see it, bail out California if it puts itself into
25 a corner. They have no plans to upgrade CARB --

1 to CARB Phase 3 gasoline because of the spot
2 spikiness of this market, and the unpredictability
3 of the forward level of the price in this market.

4 The incidental sales do not justify
5 investments. We know that. You're not going to
6 put up \$100 million not knowing what your demand
7 is going to be over time. And at the same time,
8 we will be competing with other high quality
9 demand in the RFG markets east of the Rocky
10 Mountains.

11 So far, we've only found one supplier
12 that may be able to produce, or tells us that he
13 will be able to produce CARB Phase 3, and they
14 will be an East Coast Canada. But even the
15 ability to produce CARB Phase 3 gasoline, or
16 CARBOB, does not guarantee that it will be here in
17 time, if there's a price spike, because of the
18 spikiness of this market, because in order for any
19 refiner outside of California to dedicate a cargo
20 to our market, they have to take care of their own
21 market first. They have to charter a ship, they
22 have to be aware that -- believe that the market
23 will hold up in California during the four to five
24 to six weeks that it takes for their cargo to get
25 here.

1 In the Canadian MTBE iso-octane arena,
2 there's only one supplier that may be converting
3 to iso-octane to help us in the blendstock arena
4 after we go to CARB Phase 3. And even their
5 situation is unknown, tenuous; we're not sure
6 whether or not they will, in fact, convert, make
7 the investment. It's a money loser for them at a
8 time like this, with all of the uncertainty.

9 We also know the Middle East producer,
10 who can -- is already supplying this market with
11 gasoline today, but they have had terrible
12 problems bringing gasoline into this market
13 because of the unpredictability of the price, and
14 the logistic infrastructure problems that we have
15 been describing for the last hour here. They sail
16 a ship halfway around the world, they get here,
17 there's no tanks, they have to sail away and go
18 somewhere else. This is symptomatic of a, if not
19 broken system, certainly a system that's suffering
20 some dislocations.

21 The global majors, they get to take care
22 of their own systems. We're not really worried
23 about whether the giant integrated international
24 companies are going to be able to take care of
25 their systems. We -- I describe this as the

1 galaxies in Star Wars. You know, each galaxy can
2 take care of its own people and its own galaxies.
3 It's what happens in deep space between the
4 galaxies.

5 Deep space, in our analogy, is the
6 unbranded sector, the independent sector, the
7 trading market, and the interlink between
8 California and the rest of the world. The rest of
9 the universe, if you want to call it that. We
10 don't have the tankage, so we don't have the
11 forward market liquidity, so it's -- after CARB
12 Phase 3 is introduced, all of the statistics we've
13 shown you, the charts and graph that we've shown
14 you, points to an acute shortage that will cause
15 us to fall into deep space if we don't think about
16 this.

17 Now, I don't mean to use these homely
18 analogies that just -- just as loosely, because
19 the people who are working with us today have long
20 experience in this business, and we talk about
21 keeping a pivot foot in the physical market. If
22 you're familiar with basketball, you have to
23 maintain your pivot foot. That means you --
24 anything we say must come back to a physical
25 reality. You know, the physical reality of tanks,

1 the physical reality of specifications, and the
2 forward markets.

3 So we have -- we don't mean to sound an
4 alarm, but we, once again, thank the Commission
5 for commissioning this study, helped us build up
6 this elephant that we're describing. We all know
7 the old picture of the elephant. People in this
8 room, one group might be holding the tail and one
9 is holding the leg, and one holding the trunk.
10 But only through a study like this will we be able
11 to build the whole anatomy of the elephant and see
12 what it really looks like.

13 And that -- if you look in the Chinese
14 dictionary, under the word "abstract", which is --
15 to understand something like the State of
16 California gasoline market, in the abstract and
17 make it accurate, the Chinese dictionary, the word
18 for "abstract" is "Chouxiang". "Chou" means to
19 inhale, like "Chouxiang", inhale a cigarette.
20 "Xiang" is an elephant. So what the Chinese do is
21 they inhale an elephant. They get to know that
22 elephant by thinking about it and cogitating on
23 it.

24 So that's what we're talking about
25 today. We're not questioning that alkylate and

1 other blendstocks will be available in the world,
2 in the universe outside our galaxy, but that it
3 will come at a price. And that our price needs to
4 be more than just spiky. It needs to be a high
5 plateau over an extended period of time before
6 these offshore suppliers, and we -- the traders in
7 this room, and I see some of them here, major
8 traders, too, stay up all night talking to
9 suppliers, refiners in Korea and refiners in
10 Japan, Australia, Europe, and asking them, can you
11 make this spec, can you make this spec. And even
12 if they can, they're afraid to put the ship on the
13 water.

14 So the reality of this world we're going
15 into after post Phase 3 is one that is physical.
16 It is real. And we really, we really need to
17 think about it.

18 With that, I'd like to turn it back over
19 to Thomas Gieskes to talk a little bit more about
20 the physical limitations. Even if supplies are
21 there, the problem is logistics. It's logistics,
22 stupid; right?

23 MR. GIESKES: Thanks, Gregg.

24 I'll take you through in the next
25 section of the presentation to some of the

1 barriers to supply. There are general physical
2 barriers that we discussed, the lack of tankers,
3 et cetera. Some of the constraints, particularly
4 in the LA Basin, and then some of the commercial
5 barriers.

6 The physical barriers that we've
7 identified are a clear lack of deepwater storage
8 terminals. Virtually everybody that we talked to
9 during our 50-plus survey meetings with industry
10 participants complained about a lack of storage
11 capacity available for rent. It's very, very
12 difficult at the moment to find any short term
13 tank space in California. That shortage is
14 particularly acute in the LA Basin.

15 Most of the tankage is leased out under
16 long term contracts to the refiners, and in actual
17 fact, in particular in the LA Basin, the refiners
18 also own two of the largest terminals that are
19 available on a limited basis for third parties
20 against commercial conditions. So the refiners
21 own and rent out tankage, and then they lease most
22 of the tankage in the other commercial terminals.

23 A factor that has great implications for
24 the future availability of tankage is the Ports of
25 Los Angeles and Long Beach, who favor containers

1 and car terminals, because they bring higher rents
2 on the land use than bulk liquids do. There are
3 currently city officials and action groups that
4 are demanding the removal of several of the bulk
5 liquid terminals in the San Pedro area. These are
6 all things of great concern.

7 So with the capacity lost already, and
8 more threatened by non-renewal of leases, the
9 capacity of tankage in the LA Basin is likely to
10 grow less, rather than increase. And new capacity
11 in general faces a hostile permitting environment.
12 It's not quite easy to site new source capacity
13 for failed products.

14 Another barrier to adequate supply of
15 tankage is actually one of a commercial nature,
16 and this is very similar to what Drew mentioned,
17 referred to for ships, is that the commercial tank
18 firm operator needs a long term bankable contract
19 before he can build new tankage. Refiners can
20 commit to 10 or 15 year contracts, but the spot
21 importers, the occasional importer of products
22 cannot do that. For a trader, a commitment for
23 three years is already a very long commitment.
24 And a commercial tank farm operator cannot go to a
25 bank and build new tankage based on three year

1 contracts.

2 So there's some commercial barriers, as
3 well, that prevent the usual destructive work of
4 supply and demand. Tank rates are very high in
5 the LA Basin at the moment, so you can expect
6 people to scramble and build new tankage. It just
7 doesn't work that way.

8 So, and I skipped that formal bullet
9 point, but the long and short of it is that even
10 now, in the LA Basin, cargoes are occasionally
11 turned away, and that has to happen only once or
12 twice for importers to get really skittish before
13 they put a cargo on the water that has not already
14 found a home. So the losses on a single cargo, if
15 you can't offload it in the port, are very, very
16 significant.

17 Let's take a look, and this is on Slide
18 48, at the current inventories in California. And
19 these are, first we will take a look on the left-
20 hand side. The reported total PADD V inventories,
21 so that's for all the western states, Alaska and
22 Hawaii. And you can see that the total
23 inventories in million barrels tend to move in a
24 band that is between 24 and about 36 million
25 barrels for the overall western states.

1 The reported inventories for California
2 refiners, and we don't have total reported
3 inventories for the California gasoline system as
4 a whole, but these are refiners, and a few of the
5 bulk terminals tend to fluctuate between 8 and 16
6 million barrels. The total capacity of tankage at
7 these refiners, we believe to be somewhere around
8 27 million barrels, so this means that the average
9 inventory, the 12 million is the average of the 8
10 and the 16, would be about 50 percent of the
11 available tank space. And that is a good number
12 to use.

13 We have found from our stakeholder
14 meetings that most refiners have very, very tight
15 tankage in their system. And what happens is that
16 most of the tankage is just cycling full/empty on
17 a continuous basis because of operational
18 constraints. So production will be run down of,
19 say, blended components within the refinery, and a
20 tank is running full on production, then it's
21 sampled and analyzed and made final, and gets
22 pumped through.

23 Same for the blended tanks of finished
24 products. Those tanks cycle full/empty all the
25 time. Tankage in the pipeline system, a bench

1 needs to be pumped into a tank, blended off
2 specification, and gets pumped into the pipeline.

3 So the tankage in the refining system
4 and in the California gasoline system in general,
5 is not used as a real strategic storage. Let's
6 hoard some products, because we think the prices
7 are moving up. Tankage is pretty much used on an
8 operational basis, and is cycling full/empty all
9 the time.

10 Stillwater Associates did some work for
11 the Rule 1178, the South Coast Air Quality
12 Management District, which gave us a really good
13 insight in how tankage was actually used in the LA
14 Basin refinery system. And there really is not a
15 lot of spare tankage out there.

16 So with that, that average range of
17 inventory is only something like eight days of
18 consumption. That means that if a particular
19 refinery outage occurs, and the flexibility that
20 people have to respond to that might be in the
21 order of magnitude of half of that, so let's call
22 it four days. There really is not a lot of
23 inventory space in California to accommodate
24 supply disruptions, refinery outages, et cetera.

25 What will the phase-out of MTBE do to

1 the logistic scenery. And you might think that
2 with MTBE gone, and MTBE is largely imported
3 through the marine terminals, that will free up
4 tankage on the water, that very precious commodity
5 of tank space with deepwater access. That is
6 true, but as we've seen before, not all ethanol
7 will be brought in by rail. That means that a
8 certain portion, maybe as much as 40 or 50 percent
9 of the ethanol could come in by ship. You will
10 still need ethanol tankage on the water if that's
11 the case. The tank size is largely determined by
12 the vessel size coming in, by the cargo sizes, so
13 what that means is that you then can use those
14 same MTBE tanks for ethanol. You will see a much
15 slower throughput. Those tanks won't turn over
16 all that quickly, but you'd still use a number of
17 tanks that is probably not all that much less.

18 MTBE is a single fungible worldwide
19 commodity. MTBE is MTBE is MTBE. And you can
20 import this from Saudi Arabia or from other
21 countries around the world, and it will come in
22 and it will be on spec. The replacement for MTBE
23 is a slew of other blendstocks, and Drew was
24 pointing out how C7 alkylate is the desired
25 blendstock, C7 alkylate is mixed in with other

1 alkylates. You might have to compensate some of
2 the blending properties with refines, with --
3 maybe some of the refiners can import gasolines
4 that are not quite at CARB 3 specifications, but
5 sort of near BOB. All these different animals
6 will need separate pots and pans.

7 So the net effect of phasing out MTBE is
8 yes, it will free up some tankage. Some of the
9 tankage will be used for ethanol, but this
10 proliferation of blending components that you will
11 have to bring in to feed this highly complex fuel
12 spec is not going to fit in that same tankage
13 that's freed up by MTBE. And there are several
14 other things that have concerned us when we look
15 at the logistics infrastructure post-MTBE phase-
16 out.

17 One of those is the MTBE de minimis
18 spec. There is a very stringent requirement on
19 the maximum amount of MTBE that can be contained
20 in any gasoline or gasoline component coming into
21 California. That means that a foreign producer
22 of, let's take the Canadian producer on the east
23 coast that could produce CARB Phase 3 CARBOB, he
24 will also be exporting to the east coast and has
25 other gasoline streams in his system that

1 contained MTBE. So what will happen is that
2 either a tank might still contain some MTBE, the
3 vessel might be empty from MTBE, or a gasoline
4 cargo that contains MTBE. It might be sulfur that
5 is still present from previous other streams.

6 So this MTBE de minimis spec and the
7 sulfur specification will mean that the
8 probability of getting a cargo that was certified
9 to be old spec in its foreign port of loading,
10 will actually come into California and, on
11 analysis by the inspector of final port, says
12 unfortunately, you're off spec on MTBE, or you're
13 off spec on sulfur. Now that cargo will have to
14 be segregated, put in a separate tank, and then
15 slowly blended off. All this is an additional
16 claim on the already scarce tankage.

17 Another really grave consideration is
18 the impact of the UNOCAL patent. Already,
19 currently, blending around the UNOCAL patent,
20 although most refiners have it now down to a fine
21 art, is a significant barrier to imports. It's
22 only refiners that can actually do that blending,
23 and certify a conforming fuel. And the
24 expectation is that in post-MTBE phase-out,
25 blending around the patent will be more difficult.

1 It will result in more cargoes being, or blends
2 being off spec and having to sit there for a
3 longer while before they can be blended away.

4 So all these factors combined make the
5 phase-out of MTBE, yes, it will free up some
6 infrastructure, but that infrastructure is by no
7 means adequate to handle what's coming next.

8 Let's take a look, and this is on Slide
9 50, at the LA terminal market. And as I said
10 before, the Bay Area is less of a problem. We
11 focused on LA because that's the main import
12 terminal for California. That's where the big
13 shortage is, and where the tankage market is also
14 short.

15 This, and once again, my apologies.
16 This is a very complex graph. On the left-hand
17 side it shows the commercial terminal market
18 capacity in millions of barrels, with the brown
19 that's the bottom bar in the bar chart,
20 representing crude oil. The middle bar, which is
21 sort of dark blue, is black oil, and black oil is
22 everything from bunker fuels to heavy fuel oil.
23 And the light barrel top is products, which is jet
24 diesel and gasoline, and blending components.

25 So what can be seen here that in the

1 commercial terminal market in LA, between 1990 and
2 1995, there was a very, very significant increase
3 in tankage capacity in the market. The market
4 effectively tripled in capacity. And prices,
5 which is the red line on top, which is shown here
6 on the right-hand side in cents per barrel of
7 shell capacity per month, which is the sort of
8 standard way of renting out tanks in the
9 commercial market, prices over that period dropped
10 from the historical sort of 50 or 60 cents to an
11 all-time low of 30 cents, or in the low 30's.

12 And what has happened since then is that
13 some of the black oil capacity was shifted, and
14 maybe I should explain where this big jump in
15 capacity came from. Part of it was that some of
16 the refiners shifted their terminals to commercial
17 services. One was a refinery that was -- actually
18 the refinery was shut down. The tank farm
19 continued to operate then as a commercial tank
20 farm. And another terminal owned by a refiner was
21 a crude oil terminal that then converted to other
22 services.

23 So, plus, in the black oil here, there
24 were many power stations that had fuel oil
25 storage, when they shifted from fuel oils and

1 natural gas, they built that into commercial
2 terminals.

3 What happened since '95, and this is
4 where it becomes really interesting, what happened
5 since '95 is that most of this capacity either was
6 converted from black oil to crude, or was simply
7 used up by increasing demand in the market. And
8 currently, the market, as I said, is very, very
9 tight, and prices have started to move up again.
10 What that means is that effectively, this large
11 increase in capacity, in tank farm capacity, has
12 been absorbed by additional imports.

13 A quick look on the right-hand side,
14 what's happening here, this is the tankage inside
15 the refineries in the LA Basin. We've seen a
16 diminishing in capacity, largely due to shifts
17 towards the commercial side. Underlying demand,
18 which is the red line here, which represents the
19 total amount of product coming into the LA Basin,
20 has been steadily increasing, that's the increased
21 imports that we've seen before. And here, as
22 well, little new capacity expected to come
23 onstream; in fact, capacity is still slated to be
24 taken out of service in the LA Basin. And little
25 additions in the refining side.

1 So what all this means is that not only
2 is there currently less tankage in the LA Basin
3 than there was in the early 1990's, whereas
4 imports, as we've seen, have substantially
5 increased. But if we look at the total combined
6 additional throughput since then, which is about
7 200,000 barrels a day, if you pull that through
8 tankage on what is a generally accepted
9 operational practice of about one tank turn per
10 month, say one tank cycle between full and empty
11 per month, then that means that 200,000 barrels a
12 day would've required six million additional
13 barrels of tank capacity.

14 That was just about the excess that
15 we've seen that was absorbed between the, say, the
16 1995 oversupply situation to currently, the very
17 tight situation in the tank market.

18 So this effectively makes it clear why,
19 in the LA Basin, logistics are constrained. That
20 spec capacity has effectively been absorbed, and
21 currently the market is very constrained. That
22 also means that going forward, the additional 50
23 or 100,000 barrel a day of additional increase,
24 there is not another six million barrels in spare
25 tankage capacity that's readily available and that

1 could absorb, say, similar increase in demand as
2 we've seen over the last five years.

3 So going forward, this type of increase
4 in imports coming into the LA Basin, based on what
5 we've seen over the last five years, there is no
6 similar spare capacity sitting around waiting to
7 be absorbed. That market is really very tight.

8 So the outlook for the petroleum
9 infrastructure in the LA Basin, and once again,
10 that's the market where all the problems are, is
11 that the Ports of LA and Long Beach expect
12 container traffic to effectively double in the
13 next ten years, and then double again. So both
14 these ports have very ambitious plans for
15 construction of additional, what they call mega-
16 terminals, that each require at least three to
17 400, but preferably 500 acres of land.

18 That puts a tremendous constraint on
19 existing terminals to renew their leases, and
20 certainly on trying to build additional marine
21 terminals on the water. The philosophy, the
22 underlying philosophy of the ports is that for
23 bulk liquids, it's a contrast to containers and
24 cars. Bulk liquids only need a dock, and then you
25 can put it in the pipeline and pump it inland

1 five, six, ten miles, where there is plenty of
2 spare land available. That works in the case of
3 crude oil, or very large, say, sludge of commodity
4 products that you can put in a common carrier
5 pipeline, and there is, in fact, a 42 inch
6 pipeline that does that for crude oil. It is a
7 marine berth in Los Angeles that takes the crude
8 oil and then that gets pumped in to terminals that
9 are way inland.

10 That does not work for the sort of
11 boutique imports of all these niche blending
12 components. You would lose a very significant
13 portion of your high quality products if you had
14 to put them on a common pipeline, pumping them
15 inland. For instance, if you put your nice low
16 sulfur boutique blending components shortly after
17 transferring a batch of very high sulfur jet fuel,
18 you'd lose the entire quality of your product.

19 So there really is a need for the type
20 of imports that we foresee that this market needs,
21 to have terminals directly on the water.

22 And, as I said, there are some two
23 million barrels that disappeared in recent years,
24 a further two million barrels is under threat
25 currently. There is a new rule of the South Coast

1 Air Quality Management District, it's Rule 1178,
2 requires all gasoline tankage, or tankage with
3 products with a vapor pressure of greater than
4 three psi, to be domed, sort of be a domed
5 construction over a floating roof tank. This
6 doming of the tanks requires these tanks to be out
7 of service for a long period of time.

8 The effective result of this particular
9 program is that up to ten percent of all gasoline
10 tanks in the LA Basin will be out of service at
11 any point in time over the next seven years. This
12 is a very significant reduction in the
13 infrastructure's capability of handling gasoline
14 and gasoline blending components.

15 There is a similar initiative that also
16 puts some, or might put some constraints on the
17 available infrastructure by the State Lands
18 Commission, that the State Lands Commission has
19 launched a project that looks into hardening the
20 marine oil terminals to the same earthquake
21 standards as are applicable to refineries. This
22 program I think is better timed, in terms of the,
23 say the respite it gives to the industry to meet
24 these new requirements. It's really a long term
25 program, but still, it might result in some of the

1 older terminals, with, say, all the wooden docks,
2 that might look at the replacement of those docks
3 as not commercially feasible, and would prefer to
4 just close down the dock and close out the
5 terminal.

6 The bottom line here is really that
7 without intervention, without somebody doing
8 something, things will go from bad to worse. And
9 in the MTBE phase-out, the infrastructure that
10 will be required to effectively handle imports
11 from worldwide locations, if they can be
12 identified, we are currently looking at the wrong
13 side of the equation there.

14 With that, I'll hand it back to Gregg,
15 who will talk about the commercial barriers to
16 entry.

17 MR. HAGGQUIST: Thank you, Thomas. Can
18 you hear me? Okay.

19 Once again, this is not a session to
20 analyze or interfere or tamper with the market at
21 all. That's not what we're here to do. But we're
22 here to look at the structure of things here in
23 California, and structure means physical
24 infrastructure, but it also means what causes the
25 market to move, and what might happen to the

1 dynamics of this market after MTBE phase-out.

2 We've been emphasizing all through this
3 presentation that our findings have been that
4 import demand is increasing, and after MTBE phase-
5 out, will increase even more. Infrastructure is
6 decreasing, tankage is going the opposite
7 direction. There's fewer and fewer tanks. And
8 our insularity, as Thomas mentioned in an earlier
9 slide, Houston, we have a problem. Where that
10 sentence came from was with that movie where they
11 were floating out there in outer space and
12 disconnected from things. We don't want to get
13 disconnected from the rest of the world, or do we?
14 That's the question we're here to explore.

15 So one of the problems with bringing
16 product into this market, as I said the last time,
17 is the spikiness of the market. We're all
18 familiar with that. Spikiness in prices is what
19 led the futures market in the first place. It was
20 the grain markets, you know, back in the turn of
21 the century, when the farmers were -- didn't know
22 whether to send their grain to market or not. But
23 we don't have any futures market in California,
24 and everyone will tell you it can't be done.
25 Everyone, except maybe our team here.

1 We believe the basis of a futures
2 market, we're not saying we'll set up -- we ought
3 to set up a futures market, but perhaps, perhaps
4 we ought to have the basis of a futures market in
5 a state the size of California, an economy the
6 size of California, for a commodity as essential
7 as gasoline. What I mean by that is what we need
8 to have if we can even think about a forward
9 market is a place for this bazaar to take place.
10 A gathering place, where people can come and buy
11 and sell together. There is no such place,
12 because there is no such tank farm.

13 So there's a lack of liquidity in
14 futures, lack of liquidity in a forward market,
15 which means next week or next month, or two months
16 from now. So if you're sitting in Saudi Arabia
17 and want to send a cargo here, you can't get it
18 sold because there's no forward price, there's no
19 forward -- why is there no forward price. And one
20 of the main problems is there is no place for that
21 physical exchange.

22 The basis of all forward markets, once
23 again, is physical. You can talk to the NYMX, you
24 can talk to the IP in London. The Singapore
25 markets have become more liquid than California.

1 Almost every market has become more liquid than
2 California, even Japan. Japan is working at
3 moving in the opposite direction from California,
4 and we're moving in the direction of old Japan.
5 That is insular, closed off. So, lack of
6 liquidity.

7 You also need to have liquidity and a
8 forward market. You also need some fungibility of
9 the specification. We have a boutique
10 specification in California gasoline. It will
11 become even more esoteric after MTBE is phased
12 out. And finally, you need transaction intensity.
13 You need deals, buying and selling. That would
14 happen if there was a physical place for it to
15 happen, we believe. And all of this will be
16 explored in more depth in the Strategic Fuel
17 Reserves meeting March 13th.

18 We've talked about only blendstocks will
19 be available in the future. And that's something
20 to emphasize. To me, that really strikes me.
21 Never again will we see finished gasoline coming
22 into California on a ship. You'll never see it
23 again. We'll bring in CARBOB, which is the
24 unfinished gasoline that will be put into the
25 shore tank, two-stop logistic process, once into

1 the shore tank in Long Beach, and then pumped up
2 the pipeline and splash blended, as Drew Laughlin
3 told us, at the outlying terminals.

4 So, goodbye to imported gasoline. Hello
5 to imported CARBOB and other blendstocks.

6 We know that the independents cannot
7 participate in this market. I talked about -- I
8 mean, they cannot bring product from other parts
9 of the world into this market. We can say so
10 what, that's a question that will be left for
11 debate later. But I talked about perspectives and
12 point of view earlier. When I first got involved
13 with this project it was from the point of view of
14 the independent part of the market trying to get
15 gasoline from outside of California. We
16 discovered it cannot be done; it's impossible,
17 because there are no tanks.

18 The California, only the California
19 refiners can -- I'm sorry. The independent
20 traders are locked out, and only a few of the
21 refiners here have international global capacity,
22 although they do have access to other markets
23 through brokers and traders.

24 But the final point is that the
25 combination of commercial and physical access in

1 the hands of a few players in the California
2 market may be an issue. It's not for us to judge
3 whether it's an issue, but it is a physical
4 reality, and a commercial reality to be considered
5 later.

6 With that, I'd like to turn it over to
7 the President of Stillwater, Dave Hackett, to look
8 at some of the scenarios we might expect. Dave.

9 MR. HACKETT: Thanks, Gregg.

10 All right. We've looked at alternative
11 scenarios around the MTBE phase-out. And as I
12 say, alternative solutions. We can walk you
13 through some scenarios, and then talk about our
14 recommendations.

15 We've got three scenarios. The first
16 one we're going to talk about here is the one with
17 least impact, where refinery production is only
18 going to drop by about five percent. And that
19 gasoline demand is going to be essentially flat on
20 the assumption of a tough economy here in the
21 state.

22 We're also, in this scenario, assuming
23 that imports can come in, that the product is
24 available and the infrastructure is sufficient.
25 And that there's -- that the ethanol industry has

1 done what they said they're going to do, which is
2 have plenty of ethanol available, and it will come
3 to the market without a particular problem. And
4 at a reasonable price, and that there are no
5 unplanned refinery outages. Frankly, the
6 probability of this outcome in our market is low.

7 On page 56 we've got the scenario with
8 greater impact. And again, we're assuming that
9 refinery production only declines by about five
10 percent, but that the California economy stays
11 strong and demand increases by about four and a
12 half percent over three years, and we call that
13 about seven and a half years.

14 Now, let me take a moment and say that
15 the preliminary data from the Board of
16 Equalization for 2001 through September, indicates
17 about a three percent annual growth rate for 2001,
18 so our -- could be our assumption here in this
19 scenario is a little on the conservative side.

20 Well, this scenario, though, requires
21 about 100,000 barrels a day of additional
22 gasoline, but in our scenario, petrochemical
23 markets will recover and the material that would
24 be available for alkylation will go to an
25 independent chemical. There will be some shipping

1 available, but in accordance with the state we saw
2 in the stakeholder meetings, there was only going
3 to be one foreign supplier of CARB Phase 3 CARBOB.

4 And then, like today, the import
5 facilities will be strained, and there will be
6 intermittent problems getting vessels unloaded.
7 We still see adequate production of ethanol in
8 this particular scenario, but expecting some
9 logistics problems getting it into this market.

10 And then, relative to refinery
11 performance, we would predict probably one
12 significant unplanned refinery outage per year.
13 That's the way it sort of averages. And that
14 makes the market slightly short. A slightly short
15 market will result in increased prices, and we'll
16 see some reduction in demand to a new equilibrium
17 level, and potentially some economic impact. This
18 is our likely scenario.

19 The third one, the one with the greatest
20 impact on the economy, is a production shortfall
21 of about eight percent, but with a recovery in the
22 economy so that gasoline demand grows at a rate
23 greater than we had earlier assumed, and therefore
24 imports have to be at levels of about 140,000
25 barrels a day. With, you know, shipping

1 available, but the strong economy pulling material
2 away to the chemical market. No additional
3 suppliers of CARBOB, but at 140,000 barrels a day
4 straining the import infrastructure.

5 Ethanol production would be fine, and
6 maybe some problems, and then difficulty with
7 getting ethanol in. Essentially, we were trying
8 to create a likely worst case scenario with all of
9 this, and then refinery outages, and then a
10 chronically short market. And the probability of
11 this outcome is low to moderate.

12 Okay. So those are the three scenarios
13 that we examined. Now, let's turn for a moment
14 and talk about the -- an interesting analogy, and
15 that is comparing the power markets with the
16 gasoline market.

17 And on Slide 58 here, we're talking
18 about the commonalities between the two, where you
19 see a steady increase in demand, difficulty in
20 bringing on new capacity. Difficulty in accessing
21 supplies from outside of the state. A shift in
22 the supplies of the primary energy carrier in the
23 case of natural gas, in the case of electricity
24 and crude oil, in the case of gasoline. That the
25 markets are concentrated in the hands of a few

1 players. You know, somewhere seven or eight, ten.
2 And that the last unit of energy tends to set the
3 price for the entire market. In the case of power
4 it's kilowatt hour; in the case of gasoline, it's
5 the last barrel.

6 There are, of course, differences
7 between the two. The generation was deregulated,
8 but distribution and the retail market were not.
9 In gasoline, the market is free to do what it
10 needs to do. Power can't store any inventory. In
11 electricity it's very, very difficult to do that.
12 Where in gasoline, there are inventories and they
13 do make a difference.

14 Power is completely fungible. That
15 means that the generators, all the generators make
16 the same quality power, and if you buy power
17 you're always going to get the same stuff, no
18 matter where you go in the country. That's not
19 the case with gasoline, and we've talked about
20 that.

21 In power, a small supply shortfall
22 immediately causes disruption, in this we call it
23 a blackout. As far as gasoline is concerned, a
24 small shortfall will result in a price spike which
25 will dampen demand.

1 Consumers, on the power side, and this
2 is sort of interesting. Consumers have many
3 options to reduce demand without great
4 inconvenience. That is to say, the elasticity of
5 demand for electricity is higher than it is for
6 gasoline. And in my own personal case, when the
7 retail price of my electricity down in Irvine went
8 up, I walked around and turned off the lights,
9 shut down the computer, turned down the
10 thermostat, did everything that I -- there are a
11 lot of things that I could do to reduce my
12 electricity consumption.

13 But, I still had to drive to work. And
14 so that's the key difference right there, is the
15 difference between in elasticity of demand.

16 And then, finally, you can add capacity
17 for electricity, and it's possible, I think the
18 Energy Commission ramrodded through, the Energy
19 Commission and the industry ramrodded through a
20 number of capacity additions. That's tough to do
21 in the oil side.

22 All right. Well, so let's talk about
23 recommendations now, on Slide 60. Stillwater
24 Associates is recommending that the state delay
25 the phase-out of MTBE until November of 2005.

1 What that will hopefully allow is an increase in
2 supply for this market via the Longhorn Pipeline.
3 You heard earlier, the Longhorn completes to El
4 Paso sometime this year, and then the oil industry
5 will loop the line from El Paso to Tucson and
6 Phoenix sometime within the next three or four
7 years, first half of this decade. And what that
8 will do is allow the Houston or Gulf Coast
9 refiners to supply that Arizona demand, which will
10 back supply from California back to California.

11 We're also recommending a reduction in
12 barriers to in-state capacity additions. It's
13 tough for refiners today to grow their places in
14 order to provide more gasoline. And then, coming
15 out of the Strategic Fuels Report, Strategic Fuels
16 Reserve Report, we have a number of
17 recommendations around removing physical barriers
18 to imports; improving third party access to
19 facilities; stimulating market liquidity; and
20 providing a physical delivery point for forward
21 market.

22 On page 61, we talk about the benefits
23 of delay relative to supply. We see that the
24 Longhorn Pipeline can replace Arizona volumes.
25 That's a key assumption in this analysis.

1 Additional time can provide the opportunity for
2 additional ethanol supply availability. The
3 logistics on ethanol delivery will have some
4 additional time to get into place. And there can
5 be some additional foreign sources can be -- can
6 be looked at.

7 It also provides additional time for the
8 Patent Office or the Federal Trade Commission to
9 look at the issues around the Unocal gasoline
10 patent, which we described earlier as a barrier to
11 entry in this market. And then, new technology
12 may provide some help with sulfur reduction, which
13 can improve the ability of refiners to make low
14 sulfur gasolines like CARBOB.

15 On the infrastructure side, through the
16 Strategic Fuel Reserve process paper, we saw that
17 the resolution of the permit restrictions and the
18 Not In My Back Yard delays are something that
19 we're recommending to the Energy Commission. I
20 think that they saw, we saw with the energy crisis
21 that they were able to solve problems around
22 getting power plants built that were seemingly
23 impossible before.

24 A three year delay gives commercial
25 operators the time that it takes to get the

1 financing and to construct additional facilities,
2 as well as negotiate long term contracts with
3 users. And that might very well create additional
4 -- should create additional storage that may be
5 part of the Strategic Fuel Reserve that we're --
6 hopefully you'll come back in a month and listen
7 to that story. Which will provide greater access
8 to the market by traders and importers.

9 We also recommend that the Energy
10 Commission talk to the ports about their
11 particular emphasis on containers and cars at the
12 expense of bulk liquids. And then, somewhere in
13 this mix there would also likely be a resolution
14 in the ports around the next big crude oil import
15 terminal, whether it's Berth 123 in Long Beach or
16 Pier 400 in Los Angeles.

17 From a market access standpoint, on Page
18 63, we see that additional tankage, and possibly
19 including the Strategic Fuel Reserve, will create
20 additional liquidity. And that will provide a
21 base for a forward market, and the forward market
22 will help to take the risk out of bringing imports
23 into the California market. And it'll give them a
24 place to -- give traders a place to discharge, as
25 well. And it provides an opportunity to open up

1 the market to additional participants.

2 Then there's the issue of government
3 coordination. I think you're hearing some of
4 that. There is a need to avoid uncoordinated
5 rulemaking. I think that South Coast Air Quality
6 Management District and the oil industry did a
7 good job of calling in the CEC to help coordinate
8 the issue, the issues around the Rule 1178. But I
9 think that from our perspective, that's sort of
10 symptomatic of what we're seeing across the state.

11 You know, we're in favor of revamping
12 permitting procedures in order -- and perhaps
13 creating a fast track system. And then, as well,
14 potentially creating financial incentives, and
15 we'll talk about that in the Strategic Fuel
16 Reserve paper.

17 And then I think probably the big thing
18 here is the resolution of the suit of the federal
19 oxygenate requirements within three years.
20 Perhaps that will be more clear.

21 Okay. So what's the bottom line on all
22 this. We think that the phase-out of MTBE is
23 likely to cost California consumers between \$1 and
24 \$2 billion a year in the increase in gasoline
25 cost. And that that phase-out could result in an

1 even more fractured market, with more price
2 spikes, which is another large number that you can
3 apply to it. So the avoided cost of delaying the
4 MTBE phase-out, in our mind, is somewhere between
5 \$1 and \$3 billion a year. That's a lot of money.

6 So, with that, that concludes Stillwater
7 Associates portion of today's workshop. I think
8 that I would hand it back to Staff. I think
9 likely next is go to lunch, and come back. And
10 then we want to hear from the stakeholders on
11 their perspective of this very dense data that
12 we've presented to you today. We very much
13 solicit your frank views and opinions on this
14 information.

15 COMMISSIONER BOYD: Thank you, and thank
16 you to Stillwater Associates for what has proven
17 to be an extremely interesting and thought
18 provocative findings and presentation.

19 We are, we will break in a few moments
20 for lunch, and I want to encourage you before you
21 go to lunch, don't forget to fill out that
22 question form that's available in the back of the
23 room, and provide it to the representative from
24 the Public Adviser's office, or to Pat Perez, or
25 to Nancy Deller. And I also want to remind those

1 folks who are tuned in audio-wise to please access
2 the form at www.energy.ca.gov, and to fill it out
3 and e-mail it to
4 www.publicaccess@energy.state.ca.us. Long handle.

5 Now, I need to point out that while we
6 were talking here, as is true with all 21st
7 Century systems, we had a system failure. And so
8 to those of you listening, anything that was sent
9 in before 11:30 is out there in Gregg's space
10 somewhere, and is not in our system. So I would
11 like to ask those people to re-send any messages.

12 Now, one last thing I'd like to take the
13 advantage of the Chair to make a few reflections,
14 because I'm here predominantly to listen and
15 learn. I'm really looking forward to the comments
16 of affected stakeholders and interested parties
17 this afternoon. But, as I said in the beginning
18 of my comments, I found this extremely
19 interesting, and I must confess, disturbing to
20 some degree, and maybe it's a wake-up call,
21 because this presentation, and I reserve any much
22 detailed comment until after we've heard the
23 various points of view, but the presentation
24 certainly highlighted some very significant
25 concerns to all of us, certainly to me.

1 In the beginning, in introducing the
2 subject, you immediately brought us home with a
3 five to ten percent supply shortfall statistic and
4 a 50 to 100 percent increase in gasoline price.
5 That was, those are very undesirable, if totally
6 unacceptable consequences, you know, in the
7 California economy. So obviously, we have to
8 address a lot of the issues you brought forward.

9 Your growth drivers, I found to be
10 fairly consistent with everything I've lived with
11 for many, many years. The population broke down a
12 little bit, if that, indeed, is true, that's a
13 good point. But that's something that has to be
14 watched.

15 The fuel economy issue remains a major
16 concern, as far as I'm concerned, and has to be
17 dealt with. The EMT has been on the rise for 25,
18 30 years, and is part of the California landscape
19 until we address our mobility needs in a broader
20 perspective than we can in this room, and in this
21 subject arena.

22 An important milestone, or touchstone,
23 in my mind, is the cost of fuel. The fuel
24 affordability, as you called it. The fact that
25 for 30, the cost is down 30 percent over the past

1 20 years. I mean, that's a point that has to be
2 driven home continually to those of us who have to
3 act for the consuming public, if not the consuming
4 public itself, and is a major touchstone in this
5 debate, I think.

6 Another point that I made in my mind and
7 I'm curious to hear about is the fact we're down
8 to five percent unused capacity in our -- in the
9 supply arena. The capacity of our refining
10 industry has diminished steadily per your
11 statistics. And that is, indeed, a small margin
12 that then you used to highlight the major role
13 that imports have played. Later on, you pointed
14 out to us what a significant problem imports have
15 proven to be.

16 You broached the subject of
17 opportunities to increase capacity are diminishing
18 because of a lot of force field issues, and that
19 is one I want to throw on the table for future
20 discussion. I would really like to explore
21 whether that, indeed, is a hurdle that cannot be
22 addressed somehow or another.

23 Supply/demand balance. I guess by the
24 time I got to here I said to myself, the future of
25 the transportation energy picture in California is

1 not very rosy. So while today's challenge was to
2 deal with MTBE, what you've really, the rock you
3 have turned over in pursuit of the single snake
4 entitled MTBE, has let loose a flurry of major
5 concerns with the future supply of transportation
6 fuel, at least gasoline as a transportation fuel.

7 Another concern I have is the fact that
8 you broached early on, Drew, you broached the
9 higher value of the chemical market as something
10 that puts a demand on, let me just say, our crude
11 oil supply, and to me, the economics of demand for
12 refined products, i.e., the use of crudestocks for
13 various markets in the future is something we have
14 to take into consideration. Transportation versus
15 petrochemicals. Transportation has always been a
16 very healthy arena, but there are other needs that
17 perhaps have higher values that are beginning to
18 take their toll and have to be taken into account.

19 The logistics issue that you've raised,
20 move into the whole arena of infrastructure
21 problems that I think we, as a society, face all
22 over the place. And this whole thing is
23 symptomatic of our current state of development
24 with regard to infrastructure in this state, the
25 nation. The State of California has a lot of

1 issues to challenge, but we've always been ahead
2 of most in challenging and solving, and so on.
3 Fairly confident.

4 Gregg, by the time you got to your
5 references I was ready to say beam me up, Scotty,
6 and away from some of this stuff. But the
7 elephant analogy, as Susan whispered in my ear,
8 having only known me for a few days and having
9 heard me talk continuously about systems analysis
10 and the need to look at the whole system, I love
11 the elephant analogy. That's 100 percent true.
12 We're holding up a few pieces and MTBE may be only
13 the tail of what you have unveiled to us.

14 So going further on, the eight days of
15 working range, all the logistics and the
16 commercial barriers, the forward market, the
17 analogies, even before you got to the page with
18 the comparisons to the electricity market, I was
19 shuddering from my past two and a half years
20 dealing with the electricity market and the
21 similarities. Maybe I wouldn't agree with all
22 your comparison points, but there are so many,
23 each of us could make lists of the scary
24 similarities and the need to pay a lot of
25 attention and deal with the market. And I think

1 what's happening in the transportation fuels arena
2 is a result of the work to date.

3 In this discussion perhaps we are
4 getting a look at something we can deal with far
5 in advance of what happened to the citizens of the
6 state with regard to electricity, and the lessons
7 learned in the alleged structure of the new
8 electricity market, perhaps are lessons that can
9 be applied here, but I would agree with the
10 comment that we have a more mature -- that's my
11 term -- market in the gasoline arena, and a chance
12 to deal with it.

13 And lastly, I guess just the scenarios.
14 You point out a series of very interesting
15 scenarios to analyze. The most desirable
16 scenario, of course, is not there. That's the one
17 that we all have to deal with and try to design
18 somehow or another, and that's the challenge that
19 faces us. But the inelasticity of the gasoline
20 market was an interesting comment to me. It's the
21 inelasticity of what we now devote, or utilize for
22 transportation fuel versus other alternatives
23 available in the transportation fuel arena, is
24 something that has to be looked at in depth in the
25 future.

1 In any event, I found this an incredibly
2 fascinating morning, and hopefully has generated a
3 host of comments and questions. I look forward to
4 the critique and the comments and questions, and
5 maybe we can move this ball down the field a
6 little bit as we work on this subject.

7 Pat, we will reconvene at 1:30. Good
8 luck finding lunch.

9 (Thereupon, the luncheon recess was
10 taken.)

11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

1 AFTERNOON SESSION

2 COMMISSIONER BOYD: In furtherance of
3 the logistics we described this morning, in terms
4 of trying to have discussions somewhat
5 categorically around the subject matter items, the
6 categories that were discussed this morning, I'll
7 run through and call upon individuals. We, I
8 don't know if this is good news or bad news. We
9 don't have too, too many. We'll get out of here
10 by dinnertime, at the latest, I'm sure.

11 But I also can appreciate that this has
12 come on quick and fast, and a lot of people are
13 trying to deal with it, and I expect they'll deal
14 with it in terms of written comments later on.

15 But in any event, let me move into the
16 subject areas. The first on the list was Gasoline
17 Demand Forecast, and Mr. James White, of White
18 Environmental Associates, asked to speak to that
19 subject.

20 MR. WHITE: Thank you, Commissioner
21 Boyd.

22 Commissioner Boyd, distinguished panel
23 members, my name is Jim White. A little
24 background. I'm from Brea, California, spent 23
25 years with Arco, became somewhat of an expert on

1 underground tanks, aboveground tanks, did a lot of
2 work in the field of oxygenated gasoline and
3 reformulated gasoline. As a side bar, I was also
4 manager of Arco's M85 fuel program.

5 COMMISSIONER BOYD: Is that why you look
6 so familiar to me?

7 MR. BOYD: Yes, sir. That's why we look
8 familiar to each other.

9 I just have a couple of comments, and
10 then a question. I'm glad you had added comments
11 to the questions.

12 Given the risk of serious gasoline
13 supply problems here in California with the phase-
14 out of MTBE, wouldn't it make sense to revisit the
15 basis of the Governor's decision in the 1998
16 University of California MTBE study. It's not
17 well known that the dire predictions made in this
18 study assumed -- assuming the continued use of
19 MTBE, have not materialized over the past three
20 years. Given that the predicted environmental
21 risks were substantially greater than actual
22 environmental impacts, should California be taking
23 these higher -- risking these higher prices, long
24 gasoline lines, another energy crisis, that
25 perhaps would rival the electrical and natural gas

1 problems we have just survived.

2 I beg your indulgence. I understand
3 that this is about price and supply, but it goes
4 to the basic decision that was made by the
5 Governor, and there are no other forums to give my
6 few little comments.

7 I might point out that the Department of
8 Health Services has been tracking drinking water
9 detections of MTBE, which have actually leveled
10 out since 1998, and what detections remain are at
11 very, very low levels. Only six drinking water
12 wells in the entire State of California have been
13 closed due to an exceedence of California MCLs;
14 that is, maximum contaminant levels. Now, saying
15 that, I acknowledge that there have been other
16 wells closed, but due to detections, not
17 exceedences of MCLs.

18 And I say only six, because in the
19 ranking of the big picture of chemical
20 contaminations, MTBE has the six wells that have
21 been closed, compared to over 4,000 wells closed
22 due to mostly solvents and nitrates.

23 Since 1998, there's also been another
24 significant development. As we know, most of the
25 contamination of groundwater has come from

1 underground tanks. Since that time, the deadline
2 for upgrading the tanks has passed. As a matter
3 of fact, that was at the end of 1998. There have
4 been a lot of studies done here in California on
5 the tank program that have indicated disabling of
6 leak detection alarms, inadequate tank system
7 maintenance, improperly installed tank systems,
8 lacking tank enforcement. These are all in public
9 documents, public studies that were sponsored by
10 the state.

11 I might point out that since those tanks
12 that were taken out of service since the deadline,
13 most of those tanks were older tanks, single
14 walled tanks, tanks that did not comply with the
15 preventive measures that were in place at the
16 time, and they were the tanks that were most
17 likely to have leaked without detection.

18 Finally, California's Legislature
19 actually looked at these studies on the tank
20 program, and they passed a law that required a
21 further tightening of the tank program. Among the
22 things required in these new regulations is
23 inspections of each facility once a year, instead
24 of once every three years. Enhanced leak
25 detection for single walled tanks that are in the

1 near proximity of drinking water wells. Under
2 dispenser containment. Training for owners and
3 operators of these tanks, which has heretofore not
4 been required, to make sure that they know how
5 these leak detection systems work and what to do
6 if they trigger an alarm. Testing of secondary
7 containment systems, annual testing of leak
8 detection sensors and alarms, and significant
9 penalties for the tampering with these leak
10 detection devices.

11 So, in conclusion, why are we still
12 continuing down this path that's leading to
13 greater gasoline costs and continuing uncertainty.
14 Why aren't we taking another look at the basis of
15 the Governor's decision. Most people know that it
16 was flawed, and it has proven to be flawed.

17 At a minimum, there should be little
18 fear of delaying the MTBE phase-out with the
19 substantially reduced environmental threat, given
20 the many enhancements made to the California USD
21 program.

22 Thank you very much.

23 COMMISSIONER BOYD: Thank you, Mr.
24 White.

25 Staff, any comments, questions?

1 Anybody? Thank you.

2 The next person who signed up to talk
3 about Gasoline Demand Forecast was Michael Greene,
4 of CDS Consulting.

5 MR. GREENE: Mr. Boyd and members of the
6 Commission, my name is Michael Greene. I'm a
7 consultant here in Sacramento. I certainly didn't
8 expect to be the second person to ask questions,
9 but I'll go on with it. And I have several, but
10 I'll just stick with this one that has to do with
11 supplies.

12 I'd like to pick up where the previous
13 questioner left off, and that is that the Governor
14 issued the Executive Order to take MTBE out of the
15 water, to reduce the costly environmental adverse
16 degradation that MTBE was causing, and presumably
17 will continue to cause, to whatever extent that
18 it's still in our gasoline supplies.

19 So the, as I understand it, the supply
20 problem with gasoline in the future, without MTBE,
21 has zip to do with ethanol. It has to do with the
22 production and distribution of gasoline, not
23 ethanol. Per your earlier comment about system
24 analysis, I'd like to approach this from the
25 opposite end and say instead of phasing out MTBE,

1 why don't you just phase out gasoline and replace
2 it with E85, which is out there now, and which
3 could power vehicles which are on the market right
4 now.

5 And then the last point, or question
6 about fuels is, is there anything California can
7 do unilaterally to increase fuel efficiency
8 standards in automobiles? Is that an alternative,
9 is that something that California can do?

10 Thank you.

11 COMMISSIONER BOYD: Do any of the
12 members of the consulting cadre there want to
13 comment about -- on the ease of putting E85 into
14 our system as rapidly as one might believe?

15 MR. HACKETT: Well, I think that the
16 first question that I wrote down is, is this a
17 gasoline problem and not an ethanol problem;
18 right? Yes, that is right. We think that the
19 ethanol industry will have sufficient supply of
20 ethanol to meet between 50 and 60,000 barrels a
21 day demand coming this fall. We're not all that
22 sure that the logistics infrastructure will
23 support the delivery of high levels of ethanol
24 from the midwest to California in a smooth
25 fashion.

1 I mean, fundamentally, what we're saying
2 is we think that the delivery of ethanol would
3 likely be rough, but having said that, we believe
4 that the ethanol industry will figure it out. So
5 this is not an ethanol question, not an ethanol
6 volume question. It's a gasoline supply question.

7 And as to E85, and fuel efficiency
8 standards, I think we'll pass the answer to those
9 questions back to Staff.

10 COMMISSIONER BOYD: I'm not going to put
11 Staff on the spot to answer that one, necessarily.
12 I, on my own, I reflect on the fact that I don't
13 think the State of California has the authority to
14 do CAFE standards, and we'll move on from that
15 point.

16 The next person who wanted to speak to
17 supply of gasoline components is Larry Goodwin, of
18 Texas Petrochemicals.

19 MR. GOODWIN: His questions were
20 answered?

21 COMMISSIONER BOYD: His questions were
22 answered.

23 MR. GOODWIN: Yes, sir. The Staff that
24 did the work on that came forth, the questions,
25 gave an excellent presentation. That answered my

1 questions. Thank you.

2 COMMISSIONER BOYD: Well, thanks.

3 The next person on the subject of
4 supply, Steven Smith and Duane Bordvick. Is this
5 a tag team, or --

6 MR. SMITH: Good afternoon. Thank you,
7 Commissioners and Staff. My name is Steve Smith,
8 I'm with Phillips Petroleum.

9 I want to try to break this down maybe
10 into two areas. I think certainly the consultant
11 and Staff have presented a lot of good information
12 for us to chew on about supply and demand. And we
13 aren't really questioning any of those base facts
14 that they put out.

15 However, I think the discussion, looking
16 forward two or three years from now, I would
17 suggest a little broader review along these lines.
18 I think the consultant certainly paints a picture
19 that two to three years from now, there will be
20 time for a lot of supply/demand issues to be
21 resolved. And I would suggest that that
22 examination include perhaps the following issues.

23 I think the consultant certainly
24 expressed that -- a hope and a desire that the
25 Longhorn Pipeline would be obviously in place and

1 the Kinder Morgan System would be looped. I think
2 that's a pretty big assumption at this point. And
3 we'll certainly look forward to the pipeline study
4 where a lot of that is expressed and discussed in
5 more detail. But I guess that's -- that's an if,
6 at this point, whether the Kinder Morgan System
7 would be looped to bring more supply from Texas to
8 California.

9 Further, obviously, the presence of a
10 strategic fuels reserve is still in its infancy,
11 and whether that will come to play or not is,
12 again, another if that is far from resolved,
13 certainly from many points of view.

14 I guess, also, as I think about what
15 else is happening in the country in the fuels
16 industry two, three, four years from now,
17 certainly there are some things that we would
18 encourage the consultant to also look at.
19 Certainly, federal legislation in place, in
20 discussion right now back in Washington, D.C., to
21 look at resolving the whole national oxygenate
22 picture, I think should be discussed as to how
23 that plays out.

24 Specifically, I think the biggest
25 proposal on the table right now would be to ban

1 MTBE nationwide in 2006, so the recommendation
2 here to delay an MTBE ban to November of 2005
3 really lays right on top of a federal MTBE ban
4 with all of the challenges that that brings to
5 industry nationwide.

6 So, is it smart or not to align
7 California with that. I would argue perhaps not,
8 because that's going to be another big challenge
9 for the entire industry to deal with in that
10 timeframe.

11 Similarly, I guess, industry probably
12 two, three, four years from now has a lot of other
13 issues nationwide to deal with in that same
14 timeframe. We'll be in almost every refinery in
15 the country, in the middle of major construction
16 projects to reduce sulfur in gasoline, and to
17 reduce sulfur in diesel fuel at almost every
18 refinery in the country, large, capital projects,
19 labor intensive. And there could, could perhaps
20 be a lot of refinery down time two, three, four
21 years from now to accomplish those projects. So
22 trying to put California's delay on top of that
23 has implications that we would suggest be looked
24 at very closely.

25 So I guess, if I had to summarize this

1 point, it would be that we see perhaps many
2 challenges that maybe are as large or larger
3 putting an MTBE ban two or three years from now,
4 as opposed to today, in terms of supply. We
5 question whether the supply/demand picture would
6 truly be any better two to three years from now.

7 Further, the uncertainty, the further
8 uncertainty of a delay of the MTBE ban just again
9 raises questions about investments. I think
10 certainty to the equation allows refiners to go
11 on, make investments. They know that -- they know
12 their needs, and extending an MTBE ban perhaps
13 raises further uncertainties about investment
14 decisions.

15 Let me move on to the second point. Our
16 company, Phillips Petroleum, I think many people
17 are aware has already made significant progress in
18 reducing MTBE use in the state. We, about over a
19 year ago, we went out on an aggressive plan, and
20 made significant reductions in MTBE use at both of
21 our California refineries, started buying a lot of
22 ethanol, blending a lot of ethanol, and we've met
23 our needs through that program.

24 So I guess any recommendation or
25 decision to delay certainly would raise questions

1 for a company like ours, who has made some
2 aggressive steps already, and we would certainly
3 think that that would raise questions for a
4 company like ours for what our forward plan is.
5 Can we stay the course, as a company largely
6 reducing MTBE use, can we hold our course, or
7 should we, would we be forced to reconsider, I
8 guess, if the state chooses to delay the MTBE
9 deadline.

10 So perhaps some suggestions for things
11 that the consultants take a little deeper look at,
12 and a question for a company such as ours, for the
13 action we've taken already.

14 Thank you.

15 COMMISSIONER BOYD: Thank you. Any
16 comments or questions of Mr. Smith?

17 MR. HACKETT: Yeah. And Steve, we very
18 much appreciate your comments. Phillips have been
19 very helpful so far through this process, in
20 pointing out areas that we need to look at
21 further, so we appreciate that.

22 We agree the Longhorn extension into El
23 Paso, and the potential looping of the east line,
24 either by Kinder Morgan or one of their
25 competitors, is an aggressive assumption. We

1 won't deny that. That's something that's out
2 there. Longhorn has a very tough time, so far,
3 getting as far as El Paso. So there's clearly a
4 number of issues there, and that's -- and we
5 wouldn't say that that's a firm assumption. We'll
6 agree with that.

7 The Strategic Fuel Reserve studies that
8 practically -- it's in its pre-infancy. Some
9 people have seen an early version of the study
10 we've circulated to stakeholders for comment, and
11 then we'll be back in a month. So we agree with
12 that.

13 I think that we'll hold off on talking
14 about federal legislation or a nationwide ban on
15 MTBE. There is a question that was -- about will
16 the supply/demand balance be any better two or
17 three years from now. I think from our
18 perspective, that comes back to was likely the tag
19 line of all of this, it's the logistics, stupid.
20 You don't have enough supply onshore or capacity
21 to bring in imports, then these balances won't get
22 any better. In fact, when you look at our
23 electrocardiogram, the blue graph with the spread
24 getting wider and wider, well, that's likely to
25 continue to amplify.

1 So I think the answer to that question
2 is no, unless we make some change in direction,
3 then we don't see necessarily an improvement in
4 that picture at all. And Drew, I know you
5 probably have some --

6 MR. LAUGHLIN: Yeah, just a couple of
7 comments.

8 Number one is down the road, you may be
9 right, we could have a problem just as serious as
10 we have now. But the difference in two or three
11 years with desulfurization nationally is at least
12 a differential between California and the rest of
13 the country should be a lot smaller than what
14 we're going to take a look at in possibly 2003, if
15 we go ahead with the current schedule. We're
16 concerned, we've done a lot of our studies based
17 on the deltas between the Gulf Coast and
18 California, and if you look down the road and the
19 rest of the nation is closer to at a 40 or 50 ppm
20 level of sulfur, and California being at 10 or 20,
21 the differentials hopefully won't be as large.

22 But you are right about it still begs
23 the question, you still have to have the quality
24 product that comes this direction.

25 MR. SMITH: And I guess the point I was

1 trying to make is there are potentially, as you
2 all know, some pretty big shocks that the industry
3 nationwide is going to go through three or four
4 years from now. And is California smarter to be
5 ahead of that curve, in terms of do you want to be
6 part of a national shock, or do you want to handle
7 the system, handle the situation in advance.

8 MR. LAUGHLIN: One of the other comments
9 on the pipeline study. Part of the study does
10 talk about the extension of the Longhorn Pipeline,
11 but a good portion of that study, I believe,
12 really envisions a grassroots west coast colonial
13 pipeline, just in case that the Longhorn doesn't
14 go further. But there's also the possibility that
15 the Longhorn may get taken up just simply by the
16 possibility of replacing local refineries in New
17 Mexico or just demand out to Arizona.

18 So the pipeline study envisions the
19 possibility of a pipeline from Houston to
20 California in order to give California a little
21 more strategic reserve power and give them -- cut
22 the timeline between delivering ships, per se, of
23 product from the Gulf Coast to the west coast.

24 So it's something that, well, as I said,
25 we'll be discussing in a month. But it doesn't

1 hinge on Longhorn, but it would be a lot cheaper
2 if it was Longhorn and Kinder Morgan.

3 COMMISSIONER BOYD: Okay, thank you.

4 Moving o, in the category of impact of
5 MTBE phase-out, which we've just ventured into,
6 the last gentleman. The next person expressed
7 interest in this area was Glenn Giacobbe, of
8 Lyondell Chemical Company.

9 MR. GIACOBBE: Commissioner, I'm going
10 to withdraw my question. Thank you.

11 COMMISSIONER BOYD: All right. Brooke
12 Coleman, of Renewable Energy Action Project.

13 MR. COLEMAN: Thanks for inviting me up
14 here. You caught me a little off guard. This is
15 going a little quicker than I thought it would go.

16 But first --

17 COMMISSIONER BOYD: Speak loudly,
18 please. You're tall for the mic.

19 MR. COLEMAN: How's that?

20 COMMISSIONER BOYD: That's good.

21 MR. COLEMAN: First, I want to thank you
22 for -- let me start again.

23 This is Brooke Coleman. I represent a
24 new coalition called the Renewable Energy Action
25 Project. It's a coalition with a variety of

1 different groups, including environmental groups,
2 small ethanol producers, public counties, you name
3 it. Private foundations. And so I speak to you
4 from somewhat of a diverse constituency, and from
5 a -- I have a lot of stakeholders in my group that
6 have actually a variety of different opinions on
7 the subject.

8 And I'd like to thank the Commission for
9 conducting a lot of very good reports on the
10 potential for this state to produce bio-fuels. I
11 think one of the reports states that California
12 could produce 3.9 billion gallons of bio-fuels
13 annually from wastes and residues alone. That's
14 something that I'd like to see enter into this
15 equation a little bit more effectively.

16 Unfortunately, there's a lot of talk
17 about it and there's not a whole lot being done
18 about it, and it leads to a sort of overarching
19 question as to why bio-fuels were not considered a
20 part of the solution to this problem, whether it
21 involves incentivizing the use of E10, dealing
22 with that issue in the regulation, or otherwise
23 promoting the use of bio-fuels in the state.

24 But I'm speaking under the impact of
25 MTBE because I have a general question about

1 whether there is a specific reason for not
2 including some very serious costs to consumers
3 related to not just pump prices, but public health
4 and clean-up, as well. I think there have been a
5 variety of reports that now show that MTBE clean-
6 up is going into the billions, but we can sit here
7 and argue about -- that's nationwide. We can sit
8 here and argue about what that figure is, but I
9 think it's certainly part of the equation, and I
10 was wondering if there is a specific reason for
11 that. And I can come back to that question.

12 The other few points that I'd like to
13 make are I've heard a lot of talk about avoiding
14 another energy crisis. I think there's two points
15 to be made in that context.

16 First, this is, on the one hand, it's
17 very different. There is a silver bullet here, if
18 you will, from the environmental perspective.
19 There was no MTBE for the energy crisis. The
20 public is not going to take three more years of
21 MTBE use, cost or no cost. It's not just an issue
22 of moving gasoline to people's cars. There is a
23 wild card here, and that's MTBE and drinking water
24 contamination. I'd like to put that up on the
25 screen.

1 The second thing is if we presume that
2 we all want to skip another energy crisis, we can
3 sit here and talk about how we're going to do
4 that. But actually implementing the lessons
5 learned is another story, and I'd like to point to
6 the California Power Authority report that
7 recommended for a Strategic Resource Development
8 Plan to avoid this issue again. And inherent in
9 that recommendation -- included, I'm sorry, in
10 that recommendation was an aggressive attempt to
11 promote conservation and renewables.

12 So if we're going to really avoid a
13 power crunch here, we can't just avoid the
14 transition which might occur in two to three
15 years, and I have to agree with Steve Smith on
16 that, that the supply disruptions in the state are
17 ongoing. I hadn't been to one of these hearings.
18 I went off and did my own thing for a couple of
19 years. I hadn't been to one in two years, and I'm
20 surprised to see that the gasoline and supply
21 shortages, and all this -- all these problems in
22 California are still being considered new.

23 The real way to do this us to do an
24 overarching comprehensive plan that includes
25 renewables, from my opinion. And I don't know if

1 you guys want to answer whether or not there's a
2 reason as to why, you know, the cost of MTBE,
3 ongoing three years of MTBE is not included in the
4 report or not.

5 MR. HACKETT: Fundamentally, this is a
6 fast track study, and the issues around the MTBE,
7 the logistics, it's the logistics, stupid, are
8 things that we've been working on really only for
9 a matter of weeks. And we're a spin-off from the
10 Strategic Fuel Reserve Study.

11 So as a practical matter, it wasn't in
12 our scope. Did we look at it? Yeah, we looked at
13 it. But we are not experts on groundwater
14 contamination, or the health issues. We're the
15 gasoline guys. So what you got was a gasoline
16 report.

17 MR. COLEMAN: Right. But would you say
18 that there is a significant cost associated with
19 ongoing MTBE use for clean-up that might offset --
20 I mean, we're not talking about, you know, sort of
21 a fuzzy public health thing. What I'm asking you
22 is what is it going to cost the taxpayer?

23 MR. HACKETT: As a practical matter, we
24 are not competent to address that from a
25 consultant position. We've got -- I've got some

1 personal opinions about that, but that's not why
2 we're here. We're here to talk about gasoline
3 supply and demand.

4 MR. COLEMAN: Thank you.

5 COMMISSIONER BOYD: Mr. Coleman -- oh,
6 looks like there's another --

7 MR. GIESKES: No, I would just like to
8 add a side comment. I do agree with the speaker
9 that a long-term comprehensive plan is better, and
10 I think that -- and this is, once again, a
11 personal opinion -- that a more stable price
12 environment for gasoline that has, say, an
13 elevated price because it's going to be import
14 base regardless of the solution that we propose,
15 is probably the best environment for the
16 alternative fuels to play any serious role,
17 because it is wildly fluctuating, it will be feast
18 or famine all the time.

19 You'll never get a chance to really get
20 those alternative fuels in the studies. But a
21 stable high price environment for gasoline is just
22 the right sort of environment to promote these
23 longer term alternatives. In the short term
24 perspective that we adopted for the study, how can
25 we avoid the train wreck next year rather than the

1 train wreck three years down the road. There's a
2 whole number of alternative solutions that will
3 need to be considered.

4 COMMISSIONER BOYD: Mr. Coleman, thank
5 you for your comments. I think they were good
6 comments and questions.

7 Let me mention three activities that are
8 going on here at the Commission. Recognize I've
9 been here, what, how many days? Anyway --

10 (Laughter.)

11 COMMISSIONER BOYD: The so-called AB 26
12 study is a forum that you need to be plugged into
13 and pay attention to if you want to continue your
14 involvement in the discussion of alternatives.
15 And the Commission's pipeline study and reserve
16 study that have been referenced, that this is an
17 offshoot of, almost, are other activities that I
18 think you want to pay attention to with regard to
19 how some of the concerns and issues you're
20 interested in fit in and may be taken together, or
21 at least constituents of a more comprehensive plan
22 for the future.

23 MR. COLEMAN: Thank you for the
24 response. Is there a bio-fuels component to the
25 strategic report you're referring to?

1 COMMISSIONER BOYD: Yeah, I'm seeing
2 heads in the audience of Staff shake yes, and I'm
3 glad there are because in another life I was
4 running a interagency bio-mass, bio-fuels
5 committee within this administration, so there is
6 an interest in the subject, definitely.

7 MR. COLEMAN: Hopefully that can turn
8 into support for a bill. There is, I mean, there
9 are bills sitting and waiting for a sign from the
10 administration, and that would certainly be a big
11 deal if there was a sign, to us in particular.
12 Hopefully we can move that up. Thank you.

13 COMMISSIONER BOYD: Thank you.

14 Moving on with this category, Impact of
15 MTBE Phase-out. Jay McKeeman, of CIOMA.

16 MR. McKEEMAN: Could I get some help in
17 passing this out?

18 Good afternoon. My name is Jay
19 McKeeman. I'm the Executive Vice President with
20 California Independent Oil Marketers Association.
21 We represent approximately 225 independent oil
22 marketers in the state. We serve a variety of
23 customers, from agriculture to industry to
24 commerce, and most significantly, we serve the
25 rural areas of California with non-branded or

1 unbranded supplies of gasoline. And we're also
2 active in the urban areas in unbranded supply, as
3 well.

4 The checklist that I've just provided
5 you is something that we provided to CALEPA in
6 August, when they started looking at this issue in
7 terms of an administration decision on whether to
8 continue with the MTBE phase-out. And I'm happy
9 to say that it's very similar to a slide in
10 Gordon's presentation, so I feel that maybe we've
11 had somewhat of an impact in communication with
12 the Energy Commission and the administration.

13 Very simply, the checklist is -- just says
14 you've got to take a look at the logistics and
15 supplies issues in the state before you make a
16 decision to ban MTBE, and fundamentally, and it's
17 been explained today, because of the tremendous
18 problems that very small differences in supply in
19 the state can make on the retail price of
20 gasoline. And I feel very comfortable with the
21 analysis and the conclusions that the consultants
22 have done with the report, in terms of looking at
23 those price spikes in terms of diminishment of
24 five, ten percent supply relating to 50 to 100
25 percent increase, retail price increases in the

1 state. We lived that environment, and I think
2 it's certainly those -- those numbers resonate
3 well with our membership.

4 In the -- a couple of things that I feel
5 have not been addressed adequately in the report,
6 and one is the issue of unbranded supply in the
7 state. Unbranded supply is a supply that's very,
8 very important to the state, because typically
9 it's the cheapest fuel available. And an issue
10 that has arisen several times in our discussions
11 about the MTBE phase-out is the possibility of
12 refiners, especially in a very volatile market,
13 deciding to supply non-oxygenated fuels to those
14 areas in the state where it's allowed.

15 And, for example, in northern
16 California, Sacramento area requires oxygenated
17 fuels in the summer, but Chico doesn't. Redding
18 doesn't. Humboldt doesn't. And I am concerned
19 that there is a fair amount of assumption that
20 everybody's going to have oxygenated fuel, and
21 that that oxygenated fuel will be fairly fungible
22 in the system. I think we need to look carefully
23 at that.

24 There are a couple of issues there.
25 First of all, we have, if independent marketers

1 have a non-fungible supply of unbranded fuels, we
2 have to basically build two sets of tanks to store
3 the fuel, one for the oxygenated fuel and one for
4 the non-oxygenated fuel. And we have interim
5 storage facilities, little terminals, at our
6 members' locations that would require significant
7 improvement.

8 In addition, there are some issues about
9 the trucks that you use to transport, whether
10 you'd have to have clean trucks. ARB has done
11 some work in terms of tank heels and looking at
12 the issues, and how much mixing and matching can
13 go on. But it's not very much. I mean, maybe a
14 quarter of -- you have to void your tanks down to
15 a quarter of the tank to -- and then you might be
16 able to mix in a non -- or mix fuels one way or
17 the other.

18 The whole issue is we run the risk of
19 developing non-spec fuels, and there are
20 significant penalties for that. In addition, we
21 have to develop a much tighter screening process,
22 or paperwork process, to understand that if some
23 mom and pop service station wants a batch of fuel
24 and they got oxygenated or non-oxygenated, what's
25 the heel in the tank, it becomes very much, much

1 more complex than the current system as with the
2 very fungible and interchangeable unbranded fuels.

3 So that becomes especially important in
4 rural areas, because that's where the supply
5 pinches hit the quickest. The urban areas
6 typically get the supplies first, and then the
7 rural areas typically, you know, get what's left
8 over. And if there are supply pinches in the
9 urban areas, the rural areas are constrained in
10 their fuel supplies. In addition, if we've got
11 mixing and matching issues in the rural areas,
12 that could even further constrain the ability for
13 our members to supply rural customers.

14 The other issue that I'd like to just
15 mention, and I don't know if it's in the purview
16 of the study or not, but our members are in a very
17 precarious economic condition with this nature of
18 marketplace. The fuel spikes that are occurring
19 are more frequent and longer in duration.
20 Typically, our members lose money on the front
21 face of the spike because of the market dynamics.
22 Now, I won't get into details, but trust me,
23 that's the situation. On the front, front part of
24 a spike, our members are not able to sell,
25 especially unbranded fuels, cheaper than branded

1 fuels. And sometimes those price differentials
2 can be up into the 50 cents a gallon range that
3 we've seen recently.

4 And the problem is, our members don't
5 have deep pockets. They don't have the financial
6 wherewithal to withstand the economic
7 uncertainties and the ability to sell fuel at a
8 loss for sustained periods of time. What does
9 that matter? Well, other than me losing my job,
10 there are a couple of things.

11 There have been a couple of studies
12 recently by a young woman named Justine Hastings,
13 out of UC Berkeley. She's now teaching back at
14 Dartmouth. And she has done some very good
15 economic work on the importance of the independent
16 marketer in the California marketplace. We do
17 things cheaper, we tend to be more aggressive in
18 our pricing strategies, and we are a significant
19 factor in keeping the price of gasoline
20 competitive in the state.

21 What I'm here to say is that with the
22 market in a very spiky and unpredictable
23 situation, I don't know how long our members are
24 going to be able to survive that. Probably not
25 too long, though. And if the reports today are an

1 indication that this market is going to get
2 spikier and those spikes are going to be longer
3 duration, I'm pretty confident that the
4 independent marketer will lose their place in the
5 California marketplace. And I don't think that's
6 going to be good for the California consumer.
7 It's certainly not going to be very good for my
8 members.

9 There are some very interesting
10 indications in here about the development of a
11 California fuel market, basically. We're going to
12 look at those very carefully during the evaluation
13 of the Strategic Fuels Supply discussion.
14 Certainly the idea of bringing in independent
15 supplies of fuel to California that aren't
16 governed by contract through the major oil
17 companies, provides us at least a glimmer of hope
18 that we may have access to supplies other than
19 just the California refinery base. And that's a
20 good thing. We'll have to see exactly how that
21 works out, and I frankly have to read through
22 about the last half of that report to make sure
23 that I understand the implications. But, anyway,
24 it is something that sounds intriguing to me.

25 I'd just like to add one more

1 observation, and that's that in hearing from
2 refiners about the hesitance to forgo the MTBE
3 ban, California refining margins are the largest
4 in the United States. They are very big. And
5 where do refiners make their money? In very spiky
6 conditions. So I'm just suggesting that you take
7 with the -- a little salt on the suggestions of
8 the refiners that we delay this because of various
9 reasons. They're, with a spiky market and with
10 short supplies, they're the ones that are going to
11 make the most money out of this.

12 And I would suggest that you take a look
13 at our class of trade and understand the economics
14 of what a ban might do to us, and do a little
15 comparison, because I think we stand to lose in
16 this kind of situation.

17 Those are the only comments I have
18 today.

19 COMMISSIONER BOYD: Thank you. Mr.
20 Hackett, any --

21 MR. HACKETT: Yeah. Thanks, Jay, for
22 your comments and your help with the Strategic
23 Fuel Reserve Study. Hang on just for a second.

24 Mr. Boyd, we went out to try to figure
25 out how much independent gasoline demand there was

1 in the market, and didn't find any good, really
2 good data. The answers sort of ranged from 5 to
3 30 percent of the market, but we reckon it's
4 probably more like 15. And of that 15 percent,
5 you know, that independent retailers who are not
6 associated with a major brand. And then a fair
7 amount of industrial and commercial gasoline. The
8 bulk of the industrial and commercial gasoline,
9 however, is government. It's the Highway Patrol,
10 and your local police department, and the rest.

11 So with thinking about a supply
12 shortfall on the range of 5 to 10 percent, and
13 understanding that major refiners are going to
14 keep their branded customers in supply, the Mobil
15 stations will have gas, the Shell stations will
16 have gas, Arco stations will have gas. That's
17 their job, they'll have that. They'll make that
18 happen.

19 So where does the 5 to 10 percent of the
20 shortfall in gasoline supply fall? It likely
21 falls on this 15 percent that we guess is the
22 independent demand. And a big hunk of that will
23 be on government.

24 Let's see. And then, the other point,
25 Jay made a very good point that we made some

1 overarching assumptions on the whole state using
2 ethanol. It's clear from what you said that
3 that's probably an inappropriate assumption, and
4 we need to go back and take a much closer look at
5 that, so we're looking forward to working with you
6 guys to understand that.

7 And then, just sort of a pitch for the
8 Strategic Fuel Reserve. The -- read the back half
9 of that, and then call us to see if you've got any
10 questions, because the objective of that study was
11 to see if we could take the price spikes out.
12 Price spikes are relative to unplanned supply
13 disruptions, and that's different than an extended
14 planned supply disruption. So there's some subtle
15 differences rattling around there.

16 MR. HAGGQUIST: Just to add a few more
17 things, Jay. Thank you once again. A part of the
18 study that you're looking at today, that we
19 presented, was on the cutting room floor. It's
20 a -- you haven't seen the whole thing here. You
21 have to buy the DVD to get that part.

22 (Laughter.)

23 MR. HAGGQUIST: No, but seriously, we
24 had to decide what to leave in and what -- and we
25 were trying to paint the big picture here, the

1 overall strategic. We're focusing in this
2 particular study on whether or not there should be
3 a delay on the MTBE phase-out. The issues that
4 you're pointing to will be addressed in more depth
5 in the Strategic Fuel Reserve Study. So we
6 certainly recognize those issues, and we'll
7 address them very specifically.

8 Another thing that you're bringing out
9 in your questionnaire that we've been harping on
10 amongst ourselves, and maybe didn't have the --
11 within our scope to look at this distribution of
12 ethanol itself. In our study that we presented
13 here, we pointed out that we will never bring
14 gasoline into California again. We will bring
15 CARBOB in, and it will be splash blended in the
16 terminals. Anyone who has ever traded in any
17 market knows that if you can control, if any
18 trader or company gets hold of the ethanol in
19 Sparks, Nevada, or Colton, they control the whole
20 gasoline pool in that market. So you have a
21 possibility of having spikes within the state.

22 Price spikes within the state, like in
23 these video, these games you see at the arcades,
24 where you bang down the pop-up monster. You
25 keep -- because if you run out of ethanol, you run

1 out of gasoline. So this part of the equation was
2 not in our scope.

3 MR. GIESKES: I had a brief question for
4 Jay, as well. You mentioned that some of your
5 members are currently installing a second set of
6 tanks to accommodate both sets of gasoline?

7 MR. McKEEMAN: No.

8 MR. GIESKES: Is that something that's
9 going on, or is --

10 MR. McKEEMAN: No. It's something that
11 we're anticipating --

12 MR. GIESKES: Worried about.

13 MR. McKEEMAN: -- the possibility of.
14 No, they are not -- nobody's -- the other shoe
15 hasn't dropped yet, so.

16 MR. GIESKES: Thanks.

17 COMMISSIONER BOYD: Thank you, Jay.

18 We're still on the same subject area.
19 Tom Schmitz, TAS Consulting.

20 MR. SCHMITZ: My question has been
21 answered in this section. Thank you.

22 COMMISSIONER BOYD: Thank you.

23 Elisa Lynch, Bluewater Network.

24 MS. LYNCH: Good afternoon, and thank
25 you, Commissioner and Staff.

1 My name is Elisa Lynch, I'm the Campaign
2 Director with Bluewater Network, and I have
3 comments both under this topic and Alternative
4 Solutions, and if it's okay I'd like to address
5 both of those while I'm up here.

6 First of all, we appreciate the concern
7 that was raised in this report for the increase in
8 gasoline demand. However, we wonder why the
9 consultant hasn't considered a decrease in demand
10 as a solution, as opposed to just continued use of
11 MTBE. We believe that continued use of MTBE is
12 actually an inappropriate response. It's a known
13 environmental hazard, and we think it makes a lot
14 more sense for the state to take a look at
15 reducing demand. It has a lot of benefits across
16 the board, including addressing an already serious
17 air quality problem that the state has, addressing
18 a growing global climate change problem, and the
19 state's contribution to that. And also,
20 protecting the state's economy and security.

21 I think that we need to look bigger than
22 the MTBE problem, and not consider MTBE as a
23 solution to another problem.

24 I also want to reiterate something that
25 Brooke Coleman brought up, which is looking at

1 increased use of ethanol as part of the solution
2 to that problem.

3 My second question is also one that
4 Brooke Coleman brought up, which is why haven't
5 you considered the cost of MTBE use, continued use
6 for three more years. As an environmental hazard,
7 it could have long term economic cost to the state
8 in terms of resources. And I understand that this
9 consultant may not have expertise in that area,
10 but we'd like you to at least flag the issue and
11 say that this is an area that needs to be studied.

12 Third, in addition to the idea of
13 decreasing demand to deal with the upcoming
14 problem in demand and supply, we would like to
15 recommend an alternative scenario that wasn't
16 brought up in this report. And that is instead of
17 a blanket extension of the MTBE deadline, to look
18 at this as a refiner by refiner problem, where the
19 state would evaluate on a case by case basis
20 problems with supply or with potential price
21 spikes.

22 So basically, what it would be is that
23 the state would analyze the problem that the
24 refiner's having, and if there's a compelling case
25 made, the state could grant an extension or

1 variance for a specific amount of time, until that
2 problem can be solved, and maybe have a structure
3 where you have an extension for three months or
4 six months, and then have the ability to re-apply
5 for an extension if that's needed. We just don't
6 feel that it's appropriate to have a blanket
7 extension for all refiners. They may not all need
8 it, and I don't think it can be seen in such broad
9 strokes as a solution.

10 And Bluewater Network has been working
11 on the issue of MTBE for three or four years, and
12 we definitely do not support the idea of a ban
13 extension, unless there were to be specific
14 circumstances and a specific, like I said,
15 specific case by case analysis and an extension in
16 a limited time, as little as possible.

17 Thank you.

18 COMMISSIONER BOYD: Thank you. I'm sure
19 there'll be some comments.

20 MR. GIESKES: Well, yeah, let me try to
21 address the question of the increase in demand.
22 The increase in demand is -- the curve that we've
23 predicted is sort of left to the markets. The
24 demand that would be there if prices are at a sort
25 of historical level, in the historical range, say,

1 of a dollar to \$1.50, maybe \$2. And that demand
2 is driven by factors that are not directly in
3 anybody's control, except if you wanted to go the
4 route of what the European countries did, put very
5 heavy taxation on transportation fuels.

6 And since I am Dutch, and have been
7 paying \$4 for my gasoline most of my life, I can
8 assure you that it's only very, very partially
9 effective. The demand of gasoline, if you really
10 wanted to diminish demand of gasoline, you'd have
11 to go to that sort of level of taxation on the
12 price of transportation fuels, and even then you
13 don't really address all the issues.

14 So although you could certainly see a
15 role for the state longer term, because the long
16 term price elasticity of gasoline is an entirely
17 different animal, and trying to be more proactive
18 than, I'll say the federal government, with its
19 CAFE standards, is heading in that direction, or
20 trying to do something about people's driving
21 habits. The average fleet fuel economy on the
22 sort of timeframe that we were looking at, the two
23 or three years, or actually the train wreck that
24 was threatening to happen next year, none of those
25 would come into play.

1 Then, on your suggestion as to go
2 refiner by refiner. The problem that I can
3 foresee, and certainly something that we would be
4 willing to look at in more detail, but the problem
5 is that the California gasoline system travels
6 largely on shared pipelines. So most of the
7 gasoline at some point in time will come in
8 contact with other gasoline, and refiners do
9 exchange products and independent sector, as we
10 just heard, buys actually from several refiners.
11 And the incompatibility of MTBE and ethanol, in
12 terms of vapor pressure issues, have a mixture of
13 two types of gasoline in the same tank at the
14 gasoline station, or in the same tank in the car,
15 are quite considerable. And that's why you might
16 possibly contemplate a split between northern and
17 southern California.

18 But once a refining system, as such,
19 goes from one type of fuel to the other,
20 commingling those fuels results in more
21 environmental problems than you would like.

22 MR. HACKETT: And further, the issue,
23 not only are there the issues of commingling the
24 different type of fuel, an ethanol blended fuel
25 and an MTBE blended fuel, or a fuel without any

1 oxygenates at all, you have those issues. But
2 fundamentally, this is a volume issue. The
3 refiners have all said we're going to make the
4 modifications, and we're going to work as hard as
5 we can to get them done on time. It looks like
6 they -- most of them will get them done on time.
7 They certainly have demonstrated, I think, to our
8 satisfaction, that they're trying to get this
9 done.

10 But at the end of the day, they're not
11 going to make as much gasoline as they did. And
12 so even though you could poll them individually,
13 at the end of the day there won't be as much
14 gasoline, and you would wind up with a significant
15 shortfall.

16 MR. LAUGHLIN: Yes. If you were to poll
17 them, we can't speak for each one of the refiners.
18 They're here, at least quite a few of them. And
19 you'd find out that the most of them are going to
20 be ready to go. And if you were to poll them
21 about a delay, I think you would find because of
22 the money they have spent, and they have, you
23 know, they have been spending money all along
24 based on the timetable that they have been looking
25 at on the MTBE ban as early as the end of this

1 year, which is what it's scheduled to be, you
2 would find that they would say -- not all of them,
3 but most of them, the vast majority, that they
4 would like to right now. And at least to go on
5 the schedule that's set up right now.

6 So polling the refiners, I don't think
7 would help you very much, as -- just saying it's -
8 - it's the loss of the total volume of gasoline
9 amongst all of the refiners. We're not looking at
10 each refiner, we can't look at each refiner's
11 data, but we can look at an aggregate. And in
12 aggregate, what we have been -- what we have seen
13 is the loss of volume. A loss of volume is going
14 to create a tighter market, a higher price market,
15 a more profitable market.

16 It's basically, I would, if I were a
17 refiner, I would like to go ahead with the
18 schedule as it is today. It will mean more
19 profits. It would just be that way.

20 MS. LYNCH: Thank you for your
21 responses. I know that the California Energy
22 Commission is taking a lead on the AB 2076
23 petroleum reduction strategy, and I would again
24 just urge that the two processes get merged in a
25 way, instead of ignoring the demand side and

1 looking creatively to see is there something we
2 can do there, instead of just assuming that we're
3 going to fill it up with MTBE.

4 Thank you.

5 COMMISSIONER BOYD: Thank you.

6 Now, we had one person write in, an e-
7 mail, I believe two questions in this category,
8 and I've asked Nancy Deller to read the questions
9 and see if any response is appropriate.

10 MS. DELLER: This is from Christine
11 Stackpole. And her first question, she -- I'm
12 sorry. She is the Associate Director of the
13 Downstream Oil Cambridge Energy Research
14 Associates. And her first question lies in the
15 area of supply and impact of the MTBE ban.

16 Can you comment on the actions taken to
17 date within the California and downstream industry
18 to prepare for the phase-out? You alluded to one
19 major refinery investment plan. What is the
20 status of this, and what is the status of any
21 terminal conversions to begin accepting ethanol?
22 That's one question.

23 The next question is, the consultants
24 mentioned that about 110,000 barrels a day of
25 ethanol is currently being used in California.

1 Where is that being used, and why is it currently
2 economic to blend some ethanol if there is excess
3 MTBE availability?

4 MR. HACKETT: Let me take the first one.
5 And which is -- actually, I'm going to toss that
6 back to Staff. I think Staff is in a better
7 position, I think, commenting on the status of all
8 the conversions than we are.

9 And then, as far as the second one, as
10 long as the ball's in our court I'll throw it over
11 to Thomas on that, why some people are using
12 ethanol now.

13 MR. GIESKES: Yeah. I think that might
14 be a misunderstanding there, and I apologize on my
15 part if I haven't been sufficiently clear. In that
16 MTBE balance that I showed, there was 110,000
17 barrels a day of gasoline being produced in the
18 State of California that is, and since Phillips
19 Tosco is in the room, that's no great secret,
20 that's public information. And that is how we
21 derived that a certain volume of ethanol that then
22 currently must be in the market. And also, a
23 certain volume of MTBE not being blended.

24 But these quantities are fairly small,
25 so that would be about 6,000 barrels a day of

1 ethanol currently being used, and about 10 or 12
2 TBD of MTBE that is not being used. So it was
3 110,000 barrels of gasoline, 40 of which are in
4 the LA Basin and 70 of which we assumed to be up
5 in the Bay Area.

6 MS. DELLER: Okay. On the first
7 question, Gordon, do you want to respond?

8 MR. SCHREMP: Thank you, Nancy.

9 The question about I think the
10 infrastructure, what the status of that is, as
11 well as refinery projects, I'll handle the latter
12 first. And that is, refinery projects, at least
13 in southern California, with regard to the being
14 on track to meet the Phase 3 reformulated gasoline
15 specifications, they appear to be okay. No real
16 red flags raised for those facilities down there,
17 meaning the refineries.

18 With regard to the refineries in
19 northern California, there are a couple of
20 concerns at this point in time. We do have one
21 refiner who is operating with a permit to
22 construct, but yet has to complete a EIR,
23 Environmental Impact Report, on the potential
24 concerns of receiving and dispensing ethanol for
25 the environment at their terminal. That report

1 has to be completed and approved prior to them
2 dispensing ethanol from their terminal. So that
3 may turn out to be an issue later this year.

4 There are two other refiners in the Bay
5 Area that still have yet to begin construction,
6 receive their permits to construct, and begin
7 construction. And so obviously, time is growing
8 short if, in fact, they are to be ready in time
9 for what we believe is the first week of November,
10 when ethanol will start being dispensed in
11 California through the pipeline system at the
12 refineries.

13 The second portion of the very next
14 question is -- happens to do with the terminals.
15 And there are really two main sort of sets of
16 terminal questions. One is, obviously, the
17 ability to blend ethanol at the terminals. Most
18 gasoline today, you blend ethanol -- excuse me,
19 you blend MTBE at the refinery, gasoline
20 containing MTBE is completely fungible, goes
21 through the pipeline systems, you can mix it in
22 different tanks with non-oxygenated gasoline, no
23 problem.

24 Ethanol will be blended at the terminal,
25 as the tanker truck is loaded, prior to delivery

1 to the service station. That does require all the
2 terminals having an ethanol storage tank to keep
3 the ethanol separate before it's blended into that
4 truck. And that requires not only a tank set
5 aside for that purpose. In most cases, the
6 terminals are using an existing tank, so
7 permitting and construction time is not as long
8 term as new projects, obviously.

9 And it requires the ability to receive
10 the ethanol. In most cases that will be by truck.
11 Those modifications are underway and are scheduled
12 to be complete in time, as well as the ability to
13 dispense the ethanol into the tanker trucks.

14 Another component of receiving ethanol,
15 the logistics at terminals, is receiving the
16 ethanol from the midwest. That, as has been
17 addressed in our -- in the Stillwater report
18 today, will come, we anticipate, by both ship and
19 by train. Now, the train won't go exactly to all
20 of these terminals that are spread throughout
21 California, between 50 and 60 of them. It'll
22 primarily go to a receipt location that must be
23 able to offload the trains.

24 Now, there are -- some of those
25 facilities do exist. Modifications are being made

1 to handle railcars. But the most efficient way to
2 handle movements of ethanol is with what's called
3 a unit train, about a hundred car length. And
4 that would be very efficient in terms of economics
5 and shorter round trip times to the midwest.

6 There is currently no facility in
7 California able to offload the unit train of
8 ethanol at this time. There is a project that's
9 under consideration in southern California, and as
10 far as we know has yet -- it's not yet started
11 construction. And once again, time is growing
12 short. But we still think that even if that
13 doesn't take place, rail can still move out here
14 with ethanol and, but, and their terminals can be
15 ready, but the other concern is availability of
16 railcars.

17 We estimate between three and 7,000
18 additional railcars would be necessary to move all
19 the ethanol if it was by rail alone, and move
20 pentanes, which hasn't really been discussed, and
21 that is the sort of the components that must be
22 rejected from gasoline to handle ethanol during
23 the summer months. So that's still a bit of a
24 concern, adequacy of those additional railcars,
25 but we still think the industry can do some

1 miraculous things in terms of converting cars used
2 for other purposes or building some additional
3 cars in time, by the deadline later this November.
4 But those are still concerns.

5 So I think that sort of wraps up my
6 summary of -- that we believe the status is for
7 both the refinery modifications and the terminal
8 projects.

9 COMMISSIONER BOYD: Thank you.

10 Okay. We have one last person who
11 wanted to speak on this category, Impact of MTBE
12 Phase-out. Steve Shaffer, Department of
13 Agriculture.

14 MR. SHAFFER: Thank you very much. And
15 Commissioner Boyd, congratulations. It's nice to
16 see you up there.

17 Just very briefly, listening to most of
18 this morning's session, and I'm sorry I'm a little
19 later to this afternoon's, and maybe this comment
20 was already made. But we really do need to look
21 at this as the system. One of the assumptions in
22 the report, as I glanced through it, is that
23 California RFG3 is what it is. And there is an
24 opportunity, I think, to look at the most recent
25 data in the Auto Alliance Study, take five

1 vehicles and their performance in terms of NOx
2 emissions, and to read this at the predicted
3 model. And that may provide some flexibility to
4 the refiners and allow the use of pentanes and
5 ethanol in creative ways that would maintain air
6 quality standards.

7 So I would offer that as including that
8 in the system that's being analyzed.

9 COMMISSIONER BOYD: Thank you.

10 MR. HACKETT: A couple of givens of this
11 study was that California gasoline is what it is,
12 and we're not going to change it. And the second
13 one is it's not likely that you're going to build
14 or dramatically expand a refinery.

15 COMMISSIONER BOYD: Okay.

16 Excuse me?

17 MR. PETERS: Mr. Boyd, I did turn in a
18 request to testify. Charlie Peters.

19 COMMISSIONER BOYD: Mr. Peters, I
20 believe I have you later. I should have said
21 earlier, those of you who checked off every single
22 category, which you did, along with others, we're
23 going to catch you at the end. So you can kind of
24 summarize and wrap up. Otherwise, you're going to
25 be back and forth, back and forth, on every item.

1 Would you prefer --

2 MR. PETERS: I would sure appreciate
3 being able to testify at this point, sir.

4 COMMISSIONER BOYD: All right. And
5 limited to your one subject.

6 MR. PETERS: Very good, sir.

7 I would like to provide a couple of
8 documents to you for consideration. And one is a
9 article that was written by the Orange County
10 Register, concerning some action that took place
11 in San Francisco concerning this issue. The
12 second one is our letter for -- that is for next
13 month's "Motor News". And the third one is kind
14 of an interesting document out of Washington,
15 D.C., that are some Enron documents that have
16 gotten some distribution, that we found very
17 interesting.

18 We're talking here about availability of
19 fuel in California, and Mr. Boyd, and the
20 Committee, we very much appreciate all the hard
21 work that you and the Air Resources Board and the
22 State of California has done on these issues over
23 time, because it certainly has been contentious
24 issues. And the public has gotten pretty well
25 educated on these issues.

1 I think that there is very great
2 difficulty in the position that the federal
3 government is making us do this, and we have no
4 options here other than to put ethanol in. I have
5 here a document that I brought in to CARB, and to
6 the Central Valley, concerning the SIP issue,
7 indicating that there's been court action, federal
8 court, indicating that EPA cannot mandate ethanol.
9 You have to have a competitive marketplace. You
10 can set standards, saying what standards a fuel
11 will meet, but mandating a specific fuel in order
12 to feed a specific market, the courts have found,
13 according to the newspaper articles that I have,
14 that that's not an enforceable issue.

15 San Francisco, in the one article that I
16 gave to you, chose to provide a voluntary market
17 for San Francisco. They chose to ban MTBE and
18 allow fuel to go in there, either oxygenated or
19 unoxygenated, which had potential of serving them
20 much better in a much more economical way.

21 In discussing that, we found that -- and
22 Lake Tahoe was a good demonstration of how that
23 can be done -- MTBE was banned there, and they set
24 a six-tenths of one percent MTBE content. And it
25 is our understanding, per the Air Resources Board,

1 that they're having absolutely zero difficulty
2 providing non-MTBE gasoline either with or without
3 ethanol in the Tahoe area, that is being delivered
4 out of the San Francisco area.

5 So what I am saying to you, to cut to
6 the chase, I think it is appropriate for the
7 Energy Commission to give consideration to
8 California taking a stand and providing a
9 flexibility to California's refiners, which is the
10 official position of the administration, of the
11 oil companies, and everybody, and actually taking
12 that stand and setting a cap on oxygenates in
13 California's gasoline, which, in essence, would
14 empower the refiners to provide anything from zero
15 to whatever that cap is, as oxygen content in the
16 gasoline.

17 We think that that can solve the
18 availability of product in the marketplace, and
19 provide an appropriate policy that can best serve
20 the public in California.

21 In addition to that, we would suggest
22 that it is appropriate for every pump in the State
23 of California to have a sign on it so that the
24 public knows what they're buying. If it's got
25 more than six-tenths of one percent MTBE in it, it

1 ought to have a sign that says it has MTBE. Or,
2 if it has over a certain minimum amount of
3 ethanol, it should have a sign that says that's
4 what the public is buying. And if it has no
5 oxygenates, I think then they shouldn't have a
6 sign. I'm very, been very interested in the
7 subject. I have no idea what I bought, what I'm
8 buying when I go into a station.

9 The current situation is, at the 76
10 Stations it says this fuel may contain ethanol. I
11 go in where they're selling MTBE gasoline, and it
12 says it's got it, and it, in truth, it has less
13 than six-tenths of one percent. So the public has
14 no idea what they're purchasing.

15 So, to get to the bottom line, what I'm
16 suggesting is that California provide flexibility
17 to its refiners and allow for oxygenates, putting
18 a cap on the oxygen, which allows the refiners to
19 use anything from zero to whatever the cap is, to
20 allow the market to take care of this problem in
21 the most cost effective way that'll take care of
22 the consumers, and inform the consumers what
23 they're purchasing.

24 And I'll be happy to answer any
25 questions.

1 COMMISSIONER BOYD: Thank you, Mr.
2 Peters. Comments from our --

3 MR. HACKETT: We absolutely agree that
4 the flexibility to use the most appropriate
5 components in gasoline is a useful concept. That
6 flexibility is important, because it will increase
7 supply and reduce the cost of gasoline.

8 COMMISSIONER BOYD: Thank you.

9 MR. PETERS: Another thing that could be
10 added to that is that we currently are providing
11 the federal highway funds to the refiners to put
12 in the ethanol, which is cutting our amount of
13 transportation moneys available for California, so
14 California ought to consider a special method of
15 taking a look at that so that we don't lose our
16 highway funds from the fed coming back, that the
17 refiners are putting in their pocket. Some
18 minimum energy level for the fuel, and if it's not
19 meeting that energy level because it's being
20 blended down with a low energy situation like
21 ethanol, that money ought to come back so that
22 California's got a shortfall right now, that --
23 those funds would help the Governor balance his
24 budget. So, just another little suggestion.

25 COMMISSIONER BOYD: Thank you.

1 I want to go back, we have one person
2 who signed up a little later, who wanted to
3 discuss supply, which was the item preceding this,
4 and we've finished Item C in terms of those
5 individuals who wished to speak just to it, or
6 limited to this. Bruce Heine, of Williams Energy
7 Services.

8 MR. HEINE: Thank you, Mr. Commissioner.
9 Good afternoon. My name is Bruce Heine. I work
10 for Williams Energy Services. We've got a couple
11 of stakes in today's debate, and I'd like to
12 reference a couple in particular that do deal with
13 supply.

14 Before I get to the supply related issue
15 that I wrote my question on to speak about today,
16 Williams is the operator of the Longhorn Pipeline
17 System. We've been in to visit with CEC Staff and
18 those that wrote the report in regards to
19 pipelines, and look forward to participating with
20 you even further. But since it's been raised
21 today, I feel compelled to tell you good news,
22 that we expect to start up the net pipeline on May
23 31st, for the linefill, and for operations to
24 occur some 30 days later. So if there are any
25 refiners in the room that would like to apply for

1 space on that pipeline, please see me after this
2 is over.

3 (Laughter.)

4 MR. HEINE: Like other refiners that
5 have testified today, or given remarks to the
6 Committee and Commission, we, too, as an ethanol
7 producer, have made commitments in regards to
8 plans upcoming to ship ethanol into the State of
9 California. And we were certainly making those
10 commitments based on the Governor's Executive
11 Order and the timeline contained within that
12 Order.

13 We also have another stake in this
14 process, as it relates to ethanol, and I concur
15 with a couple of comments that were made earlier
16 by Mr. Shaffer and by Mr. Coleman, in regards to
17 looking at the predictive model and the
18 possibility of increasing the level of ethanol
19 blends to assist, as Mr. Hackett put it, this is a
20 volume issue. It's not about anything but liquid
21 volume. And if it's possible to allow a greater
22 percentage of ethanol, that is quite common for
23 the rest of the United States, to allow that here
24 in California, then that seems to me to be a
25 reasonable request to re-look at that through the

1 Air Resources Board's current regulations.

2 Now, having said that, there are a
3 couple of assumptions that Mr. Hackett did
4 mention, that went into his report. One is that
5 we would not look at the possibility of changing
6 any ARB regulations. And since this is a volume
7 related issue, I would encourage Staff and those
8 that wrote the report to take a look, and if ten
9 percent blends were allowable here in California,
10 what that would do to the implications of your
11 overall end results and your end recommendations.
12 Specifically, as it relates to tank utilization
13 and some of the other concerns that you raised, by
14 having lower level ethanol blends in the
15 marketplace.

16 Also indirectly related to supply, I
17 would say that Williams is looking at a project
18 for the expansion of the Longhorn Pipeline, or a
19 separate pipeline project that would originate in
20 Phoenix -- excuse me, in El Paso, and run to
21 Phoenix. We expect to have some additional
22 information on that later on this spring, as far
23 as the status of that stand-alone project.

24 I would also tell you that we'll be back
25 on the 14th of March to hopefully suggest in

1 greater detail some of the things the State of
2 California could do to potentially expedite the
3 possibility of that project becoming a reality,
4 and helping to bring additional products from the
5 Gulf Coast into the State of California, to
6 materialize. And some of the things that the
7 consultants did suggest would happen.

8 Lastly, we plan to do a fairly thorough
9 review of all of the assumptions that have gone
10 into the model, and the conclusions today, and
11 will submit that back to the Commission, and wish
12 we had a little bit more time to prepare for that.

13 So, thank you very much for the
14 opportunity to comment.

15 COMMISSIONER BOYD: Thank you, Mr.
16 Heine. Appreciate it.

17 All right. We're going to move on into
18 another category. The next category, which was --

19 MR. HACKETT: Commissioner?

20 COMMISSIONER BOYD: Sir.

21 MR. HACKETT: Real quick. Bruce touched
22 on something that Steve Smith said earlier that I
23 do want to bring up. And --

24 COMMISSIONER BOYD: Excuse me for
25 stepping on your time.

1 MR. HACKETT: And that is the issue of
2 regulatory certainty. You know, the -- an awful
3 lot of people out there, refiners and ethanol
4 producers and logistic service providers,
5 railroads and pipelines, and an awful lot of
6 people, have spent money to get ready to do this
7 MTBE phase-out. And so, you know, part of this
8 debate is what are the longer term issues around,
9 you know, government making a rule and then
10 changing its mind. And relative to investment
11 groups and that sort of thing.

12 I just -- I'll put it out on the table.
13 I think a couple of people have touched on it, but
14 it certainly is a piece of this entire debate.

15 COMMISSIONER BOYD: I particularly
16 appreciate that comment, for reasons some people
17 in the audience would understand. But I've also
18 discovered in this ever accelerating pace of the
19 world that we live in that you used to be able to
20 set the rules of the game and play nine innings.
21 Now, now the world's a little different. You
22 don't know when you're going to step around the
23 corner and a truck's going to be there waiting for
24 you.

25 But, yeah, that's a very -- that is an

1 issue that I'm sure that will get addressed more
2 by the discussions that follow up on this
3 workshop.

4 Okay. With that, moving on to the next
5 category, which is Evaluation of Potential
6 Alternative Sources. The first person whose name
7 I have here is Nick Economides, of Hart/IRI Fuels
8 Information Services. And Nick, hopefully I
9 didn't do too much damage to your name.

10 MR. ECONOMIDES: That was wonderful, Mr.
11 Chairman. Thank you very much.

12 Good afternoon, Commissioner Boyd,
13 ladies and gentlemen. My name is Nick Economides.
14 I'm the Managing Director of Technical Services at
15 Hart/IRI Fuels Information Services, out of
16 Washington, D.C. Our organization covers the
17 industry through a number of standard setting
18 publications, such as Octane Week, Diesel Fuel
19 News, and so on. Conferences around the globe, as
20 well as consulting through our International Fuel
21 Quality Center, which is currently comprising of
22 over 60 member organizations, including many of
23 the leading refiners, automakers, and technology
24 suppliers around the world.

25 We have been closely monitoring

1 California's developments on this issue for some
2 time, and we feel we need to provide our
3 perspective on one of the key issues in this
4 debate, one that the consultants have raised, and
5 I think it's very relevant in terms of the short
6 term options that we have. Namely, the
7 availability of clean burning blendstocks to
8 replace MTBE in California's gasoline supply.

9 We're generally supportive of what we
10 heard this morning. We don't agree with
11 everything, in terms of the finer detail of the
12 conclusions and assumptions. But I think
13 Stillwater has really done all of us a favor in
14 ringing this wake-up call, as I think you called
15 it earlier, and we may need more than one as we go
16 forward. But a lot of the false sense of security
17 that we had for some time has been predicated upon
18 this impression that what we need will be out
19 there when we need it, in the volumes that we need
20 it, at a reasonable price.

21 The first point I want to leave with you
22 is that there are no market indications at this
23 point that MTBE producers, domestic or
24 international, are undertaking conversion of their
25 world-scale plants to produce any of the

1 alternative alkylate iso-octane clean burning
2 feedstocks that we're looking for, with the
3 possible exception of the Fordham Chevron Joint
4 Venture in British Columbia, where that may take
5 place.

6 And that shouldn't be a surprise to any
7 of us. The timing of any such conversion would be
8 governed by commercial, that is, financial
9 conditions for these producers. It will require
10 market demand for their product, alkylate iso-
11 octane, or what have you, adequate to provide
12 contractual commitments at a price and a volume;
13 un other words, gradable flows to justify the
14 ventures. The current economics do not provide
15 income adequate to provide the cash cost to
16 produce iso-octane, for example, even if the
17 processing facilities were already in place.

18 An additional point here, of course, is
19 the time required to evaluate engineer approved
20 permit, detail engineer purchase materials, and
21 construct the facilities to produce these
22 alternative blendstocks. The combined time
23 required for such a cycle can easily exceed 36
24 months. The alternative product market will have
25 to justify the construction or conversion of

1 facilities to produce this alternative product
2 before their resources are committed. The current
3 market does not justify such a conversion of
4 operating facilities to produce blending
5 components other than MTBE.

6 We've touched before briefly, in the
7 exchange you've had, on the notion of the
8 government edict causing a company to invest money
9 to do something to produce a certain product, only
10 to have that reversed, changed, and have that
11 product, some may argue, without even a decent
12 cost benefit analysis, be eliminated from the
13 marketplace. That's probably enough as it is.
14 But regardless of that, it's entirely unreasonable
15 to expect the same companies that were making that
16 product to expend large sums of money and human
17 resources to produce a product that has no defined
18 market, and shows costs greater than income.

19 Point number two is that it's likely
20 that the conversion of merchant MTBE units will
21 not take place before the issue is settled at the
22 national level, if it takes place at all.
23 Certainly, redirection of current MTBE production
24 to international markets is a significant
25 possibility. In other words, we may never get

1 barrels of alternative clean blendstocks coming
2 out of these plants. By extension, from a
3 California standpoint, if we cannot expect
4 incremental clean blendstock production supplies
5 from current domestic merchant MTBE producers, our
6 attention naturally turns, as the consultant has
7 here, to the current level of clean blendstock
8 supplies, and to the extent that these can be made
9 available to California.

10 Generally, the existing supply of
11 desirable clean blendstocks has been committed to
12 the markets in which they currently serve, in
13 which they are currently blended into gasoline.
14 Thus, any new components to be made available for
15 California must be produced in either spare
16 capacity or from existing surplus feedstock.
17 These are serious obstacles that -- these are not
18 the market conditions that we're operating under,
19 and they're simply not going to assure adequate
20 timely supply for California.

21 Furthermore, the availability of such
22 clean blendstocks for California is greatly
23 complicated by the stricter environmental
24 requirements for cleaner federal fuel, Phase 2
25 RFG, and the anticipated impact of the recently

1 promulgated EPA regulation of mobil source air
2 toxics -- MSAT, for short -- as well as other MTBE
3 phase-out actions. I think all these things were
4 perhaps grouped collectively under the boutique
5 fuels umbrella in comments made earlier, but it's
6 important to remember and segregate some of them
7 individually, especially the fact that gasoline
8 specifications in the rest of the country, the
9 issue of MSATs should not be discounted. It's
10 simply not as easy making clean-burning gasoline
11 for those markets without MTBE, and the same
12 components that California needs will be highly
13 coveted by these other areas.

14 The assumption that California can
15 simply bid away these barrels from those markets
16 is, at best, naive, and at worst, a recipe for
17 disaster. That's at least based on my latest
18 attempt to inhale an elephant.

19 (Laughter.)

20 MR. ECONOMIDES: As far as the national
21 legislation is concerned, there is considerable
22 activity in the US Senate that is introducing
23 additional uncertainty at this time, and could
24 lead to a major realignment in the national fuel
25 supply and distribution outlook.

1 From our perspective here, it certainly
2 remains to be seen how alternative clean
3 blendstocks can compete against the mandated
4 federally subsidized component in a world of ever
5 tighter gasoline product specs. But one thing is
6 clear, there appears to exist no federal
7 legislative or regulatory scenario that carves out
8 California only action. That's important.
9 Similarly, there is no regulatory relief on the
10 MTBE issue, at least none is forthcoming, in our
11 opinion, and none should be expected, California
12 only. The issue, this issue has always been
13 national, and it needs to be settled at the US
14 Congress, and that has not changed.

15 We disagree with some of the testimony
16 you received earlier. We think that it may be
17 advantageous for California to see what the
18 national picture emerges, and to determine how
19 California's best interests would be served in
20 that scenario of supply and demand, before moving
21 forward with that action.

22 Lead time is important, as folks have
23 pointed out very correctly, if we do something
24 with it. If we allow four years of lead time and
25 we fritter away two and a half or three of them

1 doing nothing, then we've really not done much.
2 The lesson here is that let's allow ourselves a
3 lead time, but let's do something with it at this
4 time.

5 Those are my comments. I also have one
6 question for the consultants, if I may. Dave, if
7 you could comment on the availability of ships and
8 the logistics, or a member of your team. I was
9 wondering if those 16 ships that we were talking
10 about before as being generally needed to
11 transport product, if that includes the demand for
12 shipping that ethanol might put, to the extent
13 that marine vessels might be needed to move
14 ethanol barrels, as well.

15 MR. HACKETT: I'm going to let -- hand
16 most of your comments off to Drew.

17 MR. LAUGHLIN: Yeah. On the shipping
18 issue, it doesn't, but the demand for ethanol by
19 ship, by US Flagships out to California, shouldn't
20 be a problem. There's a little quirk in the law
21 that actually allows that ships that retire, that
22 are forced retired out of gasoline service, can
23 actually enter ethanol service. Okay. So there's
24 really not going to be a problem with the
25 shipping.

1 But the ships that enter California, we
2 will have some domestic US Flagships moving
3 ethanol out here, more than likely. But more than
4 likely, they'll be foreign flagships, moving non-
5 US ethanol into the California market. Most
6 likely, the Caribbean initiative material
7 surprisingly will probably come in at exactly the
8 amount, 100 million gallons, that it's allowed to
9 come in at. And that'll come in on foreign
10 flagships, and, you know, and compete very heavily
11 with the US ethanol production for market out
12 here.

13 But supply-wise, those shipping, the
14 shipping problem should not be a problem on
15 ethanol. The shipping problem will, or could be a
16 problem on moving components if the rest of the
17 country is doing what it's doing today, just
18 normal business, moving product up and down the
19 coast and over to Florida. And as we start to
20 retire ships, it really is more than unlikely that
21 16 ships will be available. It would be pushing
22 it just to take eight ships on a continual basis
23 out of our current services, and bring them out to
24 California on a consistent long term basis. That
25 would probably move the shipping market up to

1 levels we've never seen before in US Flagships.

2 MR. ECONOMIDES: Yeah. Well, my
3 comments were primarily directed at the making
4 components available and to what extent and in
5 what volumes. Certainly the second bookend aspect
6 of that is getting them here, and --

7 MR. HACKETT: Well, and I think that you
8 share our perspective on the availability of clean
9 components from the Gulf Coast. In earlier
10 studies that we've done, you know, it was clear
11 the economics do not support the transition
12 from -- of these plants from MTBE or alkylate or
13 iso-octane. Those things don't work.

14 MR. ECONOMIDES: Yeah. I can enter for
15 the record, if you like here, a January 21st,
16 2002, butane market report that has octane spread
17 calculations, publicly available information, that
18 clearly shows that the statement I made before,
19 that the costs are not being covered, are --
20 there's ample backup for that in that document.

21 COMMISSIONER BOYD: Thank you.

22 MR. HACKETT: And one thing that Nick
23 did say is that maybe California should wait for
24 the rest of the country on these issues. And,
25 while not commenting on that specifically, it did

1 sort of spark some thinking, and that is that the
2 rest of the United States, and, in fact, the whole
3 world, looks to Sacramento for solutions to fuel
4 quality problems. And so a delay in MTBE phase-
5 out here in Sacramento is, in my view, likely to
6 do, you know, create a considerable debate about
7 an MTBE phase-out in the rest of the country.

8 COMMISSIONER BOYD: Thank you.

9 MR. ECONOMIDES: Thank you, Mr. Boyd.

10 COMMISSIONER BOYD: Larry Goodwin, you
11 had indicated a desire to speak on this point.
12 You're covered?

13 MR. GOODWIN: You got me. Thank you.

14 COMMISSIONER BOYD: Steve Shaffer, you
15 had --

16 MR. SHAFFER: Also done. Thank you.

17 COMMISSIONER BOYD: Okay. Mr. Peters,
18 you had checked this item off, as well. Do you
19 want to speak to this specific item, or --

20 MR. PETERS: I'll go ahead and wait
21 until later.

22 COMMISSIONER BOYD: Okay. Thank you.

23 Nancy, did we have one --

24 MS. DELLER: It's on E.

25 COMMISSIONER BOYD: Okay, we're not

1 there yet.

2 Now, I believe I've covered everybody
3 who wanted to speak to this point, so we can move
4 on to the next category, Barriers to Supply. Jay
5 McKeeman, had you covered that before? I kind of
6 heard you, but I'll offer you the opportunity.

7 Tom Schmitz.

8 MR. SCHMITZ: I'm covered, thank you.

9 COMMISSIONER BOYD: You're covered.

10 Well, that's it for this category.

11 MS. DELLER: Do you want me to read --

12 COMMISSIONER BOYD: Would you like to
13 read that?

14 MS. DELLER: -- read my question here?

15 Again, this is from Christine Stackpole.
16 She sent this is via e-mail. She wants to know,
17 is the challenge presented of storage capacity one
18 primarily of added cost that the industry will
19 have to incur, or one of time needed to add the
20 necessary storage? How significant is the cost of
21 adding new tankage?

22 MR. GIESKES: Let me answer that one.

23 The cost of adding new tankage is actually covered
24 by the current rate. So at current market rates
25 of storage as they prevail in the LA Basin and in

1 the Bay Area, you could build new tankage. The
2 reason that no new tankage is being built,
3 although several smaller capacity additions are on
4 the books, is largely because of hold ups in the
5 ports in permitting and land use.

6 So the current rates of, say, 50 to 60
7 cents would allow a commercial terminal operator
8 to build new tankage. It would not allow a
9 refiner to build new tankage on a fully costed
10 basis, with the sort of rates of returns that
11 refiners internally need to justify projects.
12 Typically, commercial terminal operators have a
13 lower cost of capital because they are structured
14 as limited partnerships, and current rates should
15 allow new building of tankage. And when that
16 doesn't happen it's just due to these permitting
17 values, and some commercial values.

18 COMMISSIONER BOYD: Okay. Thank you.

19 Moving to the last category that we had
20 established, Alternative Solutions, the first
21 individual I have here is Michael Greene.

22 MR. GREENE: Thank you. I raised
23 earlier questions, and I've got three questions
24 that I had written down, and I've got one question
25 that was raised on the basis of a response to

1 previous questions.

2 Chart 65 of your all's presentation
3 showed avoided costs of up to \$3 million by the
4 delay of phase-out of MTBE. I want to raise this
5 question one more time that's been raised twice
6 before. What is the estimated cost of the
7 mitigation of the environmental degradation that
8 will occur from the continued use of MTBE over
9 this rollback period? That's my first question.

10 Second question, and I believe this is
11 the third time it's been raised. Second question
12 is, what is the cost of the stranded investments
13 of ethanol producers not only in other parts of
14 the country, but in the State of California, to
15 this setback that's been mentioned about the
16 signal it sends and how it confuses interested
17 parties to the production of ethanol in
18 California, which there, as has been referenced
19 before and documented by the Energy Commission,
20 there is great potential.

21 And then, finally, whether or not there
22 is a phase-out of -- whether or not the phase-out
23 of MTBE is delayed, what is the estimated public
24 cost of the removal of the barriers to fuel
25 imports, which are mentioned in your report,

1 including NIMBY, permitting requirements, and
2 particularly what's referred to in your report as
3 financial incentives for infrastructure problems.

4 Thank you.

5 MR. GIESKES: Yeah, let me try to answer
6 that one. And once again, we are not, as
7 consultants, specialists on the issue of MTBE and
8 groundwater and the possible remediation. What
9 led us to post this number as a net number here is
10 because this is the supply side of that particular
11 equation.

12 And what we believe, and what seems to
13 have been brought out by one of the first people
14 to come to the dais and raise some questions here,
15 is that currently, actually the MTBE contamination
16 is pretty stable, that there are not all that many
17 new sources. So what a three-year delay will do
18 is it will not either increase or decrease the
19 ultimate remediation cost by much. It just is a
20 sort of status quo. So at the most, you're
21 talking about the possible escalation of the
22 clean-up cost, it's the overall number is not
23 going to change much, but the differential might
24 change.

25 As to the stranded cost of the capital

1 already spent by not just the ethanol producers
2 but also some of the logistic service providers
3 and the refiners, they are -- that's a very valid
4 concern. We have not tried to quantify that, once
5 again, because it was not part of our brief. But
6 these are temporarily stranded costs, and to
7 offset that you could also look at the stranded
8 cost of the MTBE producers, whose costs will be
9 permanently stranded. None of the MTBE producers
10 have fully recovered their cost of the initial
11 investments since MTBE was first introduced.

12 So there's two sides to that equation.
13 And, yes, in this case it's a little bit the state
14 giveth and the state taketh away. But there are
15 stranded costs on both sides of the equations, and
16 in the case of a deferred MTBE phase-out, it would
17 be a temporarily stranding of those costs, rather
18 than a permanent one.

19 Finally, the cost of the removal of some
20 of those barriers, and the state taking a
21 facilitating role in some of that, that will be
22 discussed at length, in depth, in the Strategic
23 Fuel Reserve Study. Our preliminary conclusions
24 there, as they have been communicated to the
25 industry, is that the, for the type of solutions

1 that we are proposing there, the costs to the
2 public, the state, are an order of magnitude, or
3 many orders of magnitude, smaller than the
4 potential savings.

5 So, please come back March 13, and we
6 will discuss it in detail.

7 MR. GREENE: I will. The other question
8 that I wanted to ask that had been raised on the
9 basis of something you all responded to, to the
10 previous question. Someone right here mentioned
11 that oxygenated fuel is not now required in some
12 places in California.

13 MR. HACKETT: That's correct.

14 MR. GREENE: And you acknowledged that
15 you did not, that that was not part of your
16 assumptions. Your assumption was that it was
17 required, or would be required to be used in every
18 place in the State of California. How will your
19 projections change as a result of tweaking the
20 formula?

21 MR. HACKETT: Likely, what will
22 happen -- we said gee, if the whole state goes to
23 blending with ethanol, and -- we were trying to
24 come up with an ethanol demand number of 55,000
25 barrels a day. And then, but the answer to your

1 question really is going to be we have to sit down
2 with the people that have to move this gasoline
3 around, and try to figure out if -- how they're
4 going to segregate non-oxygenated CARB gasoline
5 from oxygenated CARB gasoline, and it's not until
6 we've done that analysis that we're going to be
7 able to accurately answer the question.

8 In general, what happens is that today,
9 70 percent of the gasoline in the state has to be
10 oxygenated by federal regulation. And then the
11 San Joaquin Valley is going to bump up to severe
12 non-attainment, and that means they're going to
13 need oxygenated gasoline, as well. And so you're
14 getting into the ballpark of about 80 percent of
15 the gasoline demand is -- needs oxygen by --
16 according to the government. So what that leaves,
17 then, is northern California, north of Sacramento
18 and up in the mountains, and mostly the northern,
19 rural northern California is primarily the areas
20 that could be non-oxygenated, along with San
21 Francisco.

22 MR. GREENE: Okay. I think I
23 understand.

24 MR. HACKETT: It's complicated.

25 MR. SCHREMP: Dave, I'll just add to

1 what Mr. Hackett said, and really, on a -- back up
2 a little bit on a more of a macro level, a bigger
3 picture issue. The assumption that we're going to
4 use ethanol in all our gasoline is really based on
5 are the individual means of refiners. Initially,
6 they planned on oxygenating all the gasoline with
7 ethanol. As time goes by, they will look at the
8 ability to take out some of the ethanol and move
9 to a non-oxygenated gasoline. Something that is
10 done today, in part, in the areas they are
11 permitted to market a gasoline without an
12 oxygenate.

13 We think as time goes by, if the
14 economics, segregation capability makes sense,
15 that will also occur. But on the big picture
16 point of view, for whether or not we assume
17 ethanol is in for all gasoline or 80 percent of
18 the gasoline, it does not change the fundamental
19 outlook in the Stillwater report, and that is it's
20 a supply issue. It's gasoline volume. Ethanol in
21 the summer months does not really extend the
22 supply of gasoline in California, primarily
23 because as you put ethanol in, to still make
24 complying fuel you have to take some other things,
25 or not blend other things in your fuel, such as

1 pentanes and some other gasoline components. So
2 you don't really extend the gasoline pool.

3 So whether or not we assume 100 percent
4 ethanol or 80 percent in the Stillwater report, it
5 will not appreciably change the amount of gasoline
6 or volume that needs to come into this
7 marketplace.

8 COMMISSIONER BOYD: Thank you.

9 The next person I have signed up here is
10 a Mr. John King of the California Farm Bureau
11 Federation.

12 MR. KING: Commissioner Boyd, members of
13 the panel and study group, I do represent the
14 California Farm Bureau. My name is Jack King.

15 I'd like to kind of put a face on the
16 California side of the ethanol potential in
17 California. It was mentioned this morning that it
18 doesn't appear at this point that the -- the
19 production of ethanol is going to be a serious
20 issue as much as the logistics of it is. Which I
21 would like to further confirm by indicating that
22 we currently are producing 2.5 billion gallons of
23 ethanol in this calendar year, 58 plants are
24 operating, 17 additional plants are under
25 construction. So there's certainly the suggestion

1 there that the ethanol is out there being
2 produced.

3 There's no question that logistics do
4 become a concern. I would suggest from just a
5 practical standpoint, certainly we move a lot of
6 produce across the country. We seem to have the
7 ability, we can move lettuce from -- perishable
8 crops from fields to back to the east coast. I
9 would suggest that certainly the ability is there
10 to solve the logistic transportation problems. I
11 realize it's not that simple, but unless we do
12 take steps to deal with logistics, it will become
13 a self-fulfilling prophecy or prediction that we
14 won't be able to supply the logistics.

15 So I would like to suggest, and perhaps
16 ask the study group if they've exhausted all their
17 study potential as to what needs to be done to
18 fill this logistic gap, whether there's some more
19 potential there that can be studied. And I
20 realize that ten months is a short period of time,
21 but the suggestion that I would like to make is
22 that we do need to get on with it. We need to
23 make commitments, and then let our industry deal
24 with those problems.

25 I didn't hear this morning that there

1 was any study done on the instability of world
2 supply of oil. We get \$12 million, or we purchase
3 \$12 million a day of crude oil from Iran and Iraq.
4 Certainly in any scheme of things there's also a
5 danger that that supply becomes in doubt and in
6 question.

7 But I'd mainly like to just comment on
8 what I think will be the potential in California
9 for ethanol production. With the right signals, I
10 think it can be shown that we have a great deal of
11 potential here in California to make ethanol from
12 waste products, from corn. We have the potential
13 here ourselves to fill this void. I realize it
14 takes a year turnaround time on developing ethanol
15 plants, but I would like to suggest that with the
16 proper signals, that can -- that can come to play
17 here in California.

18 We're excited about it for its
19 potential, in terms of another crop opportunity
20 for us, a way of solving some of our waste
21 problems in California. So I think in the
22 interest of dealing with this issue, I think the
23 sooner the better. Not -- not wanting to overlook
24 some of the practical problems, but the mere
25 suggestion that we have many opportunities out

1 there, and we see it as a win/win potential for
2 California.

3 With that, I'd just like to conclude my
4 remarks by asking the panel if they feel that more
5 work can be done on the logistics side of getting
6 the ethanol here to California.

7 MR. HACKETT: I think that in the
8 process of preparing for today's meeting, one of
9 the areas that we didn't have a grasp on that we
10 would've liked to have had is, you know, the
11 status of the ethanol supply logistics. I know
12 Staff has been paying attention to that, but we
13 didn't go through that in the rigor that we went
14 through some of the other things. So, you know,
15 in the spirit of trying to create more business
16 for consultants, yeah, I think it ought to be
17 looked at.

18 (Laughter.)

19 MR. HACKETT: But fundamentally, at this
20 point we don't have a clear view of exactly how
21 it's going to go. And so when I say rocky, that's
22 as opposed to smooth. Smooth means you can sleep
23 through the night, and rocky means that you might
24 be up all night trying to solve problems.

25 MR. HAGGQUIST: I'd like to just add a

1 few things to that. You know, in the process of
2 this study we certainly discovered that there's a
3 fractured situation here, fractured in the people
4 in this room who were not allowed to talk to each
5 other because of anti-trust regulations. You
6 know, the -- the integrated oil companies are
7 limited in what they could say to each other. So
8 that dialogue, as far as studying the holistic
9 infrastructure of the state, is limited.

10 And then within the state itself, there
11 are the different bodies of decision-making at the
12 local level, and then, of course, at the CEC here,
13 and then there's the Air Resources people. The
14 word that I think is the key that you mentioned is
15 integration, and a total integrated type of
16 solution. Not that the government has a planned
17 solution, but that they can certainly pull
18 together all of these different strands, and we've
19 heard very good comments here today on alternative
20 demand side solutions, logistic side solutions,
21 supply side solutions. Integration.

22 So, I mean, I -- to really answer your
23 question on logistics, more work does need to be
24 done in an integrated way.

25 COMMISSIONER BOYD: Thank you.

1 I have a sign-up sheet here from a Mr.
2 Mike Tinney, Tinney Associates. Perhaps he left,
3 because he did make some notes on the paper, and
4 I'll read what I think his question.

5 He just said reference is made to the
6 many problems caused by the, quote, boutique,
7 quote, formulation specs for California. Why no
8 recommendation to change the specs.

9 Well, I think we've heard that
10 recommendation several times today, and I think
11 it's -- it has been well received, or received.
12 and so I would just put this in the record, and
13 we'll move on.

14 I have a Mr. Matt Williams, who has
15 signed up as a resident and consumer of the State
16 of California. Good to hear from them, finally.

17 MR. WILLIAMS: Thank you. There's a lot
18 of issues that we've heard about today, but I'd
19 actually like to quote Gordon, in what he said in
20 one of the key issues, which is, it's a supply
21 issue.

22 And my question to the consultants, and
23 I'm asking this as a resident of California and as
24 a person who pays for my gasoline out of my
25 pocket. The three scenarios that you presented

1 only use the 5.7 percent volume ethanol component.
2 And is there any reason why there isn't a scenario
3 with ten percent ethanol as was used in the rest
4 of the county? Because, at the risk of
5 prejudicing your answer, I see that our shortfall
6 largely or completely disappears. And one would
7 think that that should be one of the scenarios.

8 MR. HACKETT: Well, again, that comes
9 back to one of our givens, which is we're not
10 going to change the quality of the gasoline. And
11 at the end of the day, when you look at blending
12 gasoline to the CARB Phase 3 model, with ten
13 percent ethanol, it's virtually impossible for a
14 refiner to do that at the specifications. The
15 specs are too tight to blend at ten percent. And
16 so that's the implication, I think, of what we
17 heard over on this side of it. Maybe we ought to
18 take another look at the predictive model.

19 And then Williams' suggesting, you know,
20 look at this from a ten percent blending
21 standpoint.

22 MR. WILLIAMS: Well, then, my question
23 ends up being to the illustrious Commission. I
24 think, as a consumer, and as you all making your
25 decisions, and as you said, you've heard that

1 maybe the specifications need to be looked at,
2 that if we are going to use this illustrious body,
3 Stillwater, who studied the economics and has so
4 effectively given us some very dire economics,
5 that we should see what the impact is of ten
6 percent, recognizing that there are going to be --
7 need to be specification changes.

8 In your recommendations that you've
9 given here in the other three scenarios, there are
10 unknowns that you've qualified your comments with.
11 And I would certainly think that myself, as a
12 consumer, the rest of the people here, as
13 consumers, and other interested parties, that that
14 would be a fourth scenario that I would ask the
15 Commission to authorize them to put in so that we
16 can see what the full economic impact is.

17 COMMISSIONER BOYD: Well, I hear the
18 question, and since it's been put several times
19 today it's one, obviously, that collectively many
20 of us are going to have to deal with. And I will
21 bring up the elephant again, the elephant analogy
22 made earlier this morning, which is a better
23 substitute for the dry alternative systems
24 analysis.

25 I think we've heard time and time again

1 today the fact that it's getting more difficult in
2 this society of ours to make decisions that don't
3 take more into account, you know, the whole
4 systems impact. And we've heard a lot of that
5 today. I'm sure there'll be some dialogue back
6 and forth between this agency and the air
7 pollution agency, and other government agencies
8 involved in pieces of this entire question. I
9 won't put Mr. Simeroth on the spot, who's leaning
10 against the wall back there, because -- but there
11 are people who do have a concern for, you know,
12 the issue of consumers as breathers of the air,
13 and the original initial ideas behind California's
14 high quality gasoline.

15 I must confess to our consultants, I
16 really don't like the term boutique fuel, but I've
17 sat here all day and listened to it, because,
18 wearing a different hat a long time ago, I was an
19 advocate for this fuel in order to address
20 California's public health concerns. So that has
21 to be factored into the equation, and everybody
22 needs to understand the trade-offs. And I do
23 think it's a very fair question, and it is time to
24 put that into the equation. And I've been
25 anticipating since early this morning the fact

1 that multiple government agencies are going to
2 have to sit down again and discuss the
3 ramifications of this.

4 So, were you the last witness, which
5 you're not, I would use this to bridge into some
6 concluding remarks that fit, but I'll save them
7 for later.

8 MR. WILLIAMS: Thank you.

9 COMMISSIONER BOYD: Thanks very much.

10 Steve Shaffer, you had indicated you
11 wanted some words on this subject.

12 MR. SHAFFER: A couple more comments, if
13 you'll indulge me.

14 One, I need to reinforce some -- the
15 part of the message that Jack King presented, that
16 California agriculture views this as a tremendous
17 opportunity for rural economic development, market
18 diversification for an agriculture industry that
19 is lagging a bit, frankly.

20 The opportunity to produce ethanol in
21 the state runs probably to virtually every county
22 of the state, maybe not some of the mountain
23 counties, but from Modoc County down to Imperial
24 County. And we've been in contact with grassroots
25 organizations and major agricultural interests

1 that are all waiting to see what the regulatory
2 climate is going to be so they can do their due
3 diligence and make their investment decisions.

4 So I want to reinforce that in terms of
5 corn, in terms of cheese whey, in terms of sugar
6 cane, in terms of crops that perhaps need some
7 agronomic development but that can provide
8 multiple environmental benefits in terms of
9 reduced water consumption, in terms of soil
10 conservation, in terms of wildlife habitat, and
11 also providing feedstocks for bio-ethanol.

12 So I want to make that message very
13 clear, that there are other benefits to be
14 derived.

15 I'll pose a question also to the
16 consultants. You mention in one part of the
17 report of the potential for a doubling of the cost
18 of gasoline, given the shortages. And your
19 concluding remarks, though, say the impact will be
20 one billion to three billion gallon -- dollars, I
21 presume annually. At roughly, it's a 13, 15
22 billion gallon gasoline market. That translates
23 to substantially under that number, so if you
24 could reconcile that for me.

25 And I'll make one other comment, because

1 I can't resist getting back to the elephant. And
2 then I'll let you answer my question. But, you
3 know, we're talking about just touching the
4 outside of the elephant, and I think to really
5 solve this problem we need to look at the way the
6 elephant works internally. Maybe it's an MRI, I
7 don't know. But, and I'll just reinforce this,
8 that in my mind, the brain of the elephant, or
9 perhaps at least the frontal lobe of the elephant
10 is this predictive model issue, and it really does
11 need to be addressed, and really does need to be a
12 part of the analysis.

13 And I'll entertain the answer to that
14 question. Thank you.

15 MR. GIESKES: Let me address that first
16 question of yours, why did we estimate the overall
17 price impacts to be lower than a doubling on the
18 price. And if the California prices were to be
19 sustained at a level of twice world prices, it
20 would attract supplies from just about everywhere.
21 And similar to the price shortages, the shortages
22 and the price spikes that we saw in 1999.

23 So what will happen is that, indeed, and
24 we expect that in the summer of 2003, if the
25 summer blending season starts, you would see

1 severe shortages. And that would attract
2 additional supplies from all sorts of parts of the
3 world. But those supplies would come in at a
4 higher price. And then we look at alkylate from
5 the US Gulf Coast, and what price to buy, the way,
6 so ultimately, you might end up with a price, as I
7 say, 30 to 50 cents above the current price
8 levels. And that's a fairly conservative
9 estimate.

10 So there would be initially a doubling
11 of prices, and then some consumer demand would
12 kick in, as well. Consumer reactions to such
13 doubling of the prices would be a reduction in the
14 amount, supplies would be mobilized and prices
15 would come down to a plateau that is substantially
16 higher than the current. And with increased
17 volatility, as well.

18 MR. SHAFFER: I would just caution in
19 how that information is presented, because those
20 in the media can -- may pick up on just this price
21 doubling, and not explain the full picture. And I
22 think that's extremely important.

23 MR. HACKETT: Thanks very much. And
24 actually, the Staff pointed a similar thing out to
25 us at lunch. You guys got to 2001 with this

1 electrocardiogram that's essentially going out of
2 control. What does it look like from here, MTBE
3 in or out. And do the prices, in fact, stay at
4 twice where they are now. And so we did not, I
5 think that we did not walk through that, and we
6 should do that, you know, in the follow-up.

7 Sort of another comment here. We are
8 recommending a delay of the mandated phase-out of
9 MTBE, but that doesn't mean that the refiners
10 can't do what they can pull off. We know, for
11 example, that refiners are very unhappy, some are
12 very unhappy with their liabilities relative to
13 groundwater contamination. They don't like the
14 lawsuits, they don't like the big bucks that it
15 could potentially cost them for the rest of it.

16 So, and frankly, they don't like
17 blending oxygenates. You know, it's not a
18 gasoline. They want to sell gasoline, not
19 gasoline and MTBE or ethanol. They want to sell
20 gasoline. And so we know that they have internal
21 drives to get away from MTBE, to the extent that
22 they can.

23 Our expectation is that, MTBE in or out,
24 there are likely to be a continuing growth in the
25 demand for ethanol in this market, primarily

1 because ethanol has a number of -- a number of
2 properties that are quite good, as far as a
3 gasoline blender is concerned, not the least of
4 which is octane. When MTBE comes out of the pool,
5 this market's going to be short on octane; ethanol
6 is a good way to replace it. There's no question
7 about that.

8 So then, the issue gets to be -- and I'm
9 taking a very long time to get to the point on
10 biomass, or ethanol, especially the waste stuff.
11 I think there's a lot of sympathy out there in the
12 oil industry for a guy that can turn trash into
13 fuel. And I don't think there's anybody in the
14 room doesn't think that's a great idea. I just
15 wondered what's taking so long to make that
16 happen. You know, there's some kind of a
17 disconnect rattling around, and all that, and I
18 don't think it's because you don't have a
19 government subsidy. There's got to be something
20 else, and that's, you know, there's further
21 discussion going to go with that, I'm sure.

22 COMMISSIONER BOYD: Steve, you and I
23 have been trying to figure out the answer to that
24 question for a couple of years now, and I won't
25 pursue it any further.

1 MR. SHAFFER: We still need a little
2 help, Jim.

3 COMMISSIONER BOYD: Yeah. Okay.
4 Charlie Peters, did you want to --

5 MR. PETERS: Mr. Boyd, Chairman Boyd and
6 Commission, thank you for the opportunity to be
7 here. Somebody, Mr. Boyd, that you're familiar,
8 and I won't say his name because I don't want you
9 to throw something at me, but somebody that used
10 to be on the board when you were at the Air
11 Resources Board, told me of going down to Brazil,
12 and he said it was so bad down there when they
13 were using the very heavy levels of ethanol that
14 it actually made his eyes bleed, and his nose
15 bleed.

16 Now, whether that's valid or not, and
17 whether this person is completely credible or not,
18 if I mention his name you might say he's not, but
19 that was certainly his observation.

20 I was talking with another gentleman who
21 went down there when the inflation rate was double
22 digit per month, and he indicated that the primary
23 reason for that was the huge subsidies going into
24 the creation of ethanol. And once they got away
25 from that and went back to using some gasoline and

1 getting down to, I believe, a 20 percent, 25
2 percent ethanol, their economy seemed to
3 straighten out considerably.

4 Very curious here, and our letter for
5 next month is talking about making of ethanol and
6 how you can make it out of different products, out
7 of a 1933 article. And it says that petroleum
8 also supplies raw materials for the manufacture of
9 ethanol. At current crude oil prices, such
10 ethanol can be made at a cost as low, or lower,
11 than alcohol from any other raw material. What
12 that's saying to me is that the refiners can make
13 ethanol today, probably cheaper than any of the
14 sources that we're currently considering. The
15 only difference is that we are currently
16 subsidizing out of the highway fund, at over 50
17 cents a gallon that's going to the refiners to put
18 the ethanol in, plus any ethanol that comes from
19 someplace else, we're charging over 50 cents a
20 gallon to bring it in from outside the country.

21 If we were to take that same situation
22 and apply it to products coming out of this
23 country, we'd probably be producing an awful lot
24 of natural gas out of California, where we're
25 currently probably producing zero. We'd probably

1 be bringing an awful lot of natural gas down from
2 Alaska, we'd probably be going in in Bakersfield
3 and pulling out a lot of that oil there, and
4 turning it into gasoline right quickly, if we put
5 a 50 cent a gallon for bringing in the oil in from
6 outside the country, that would happen very
7 quickly, and that would balance the California
8 budget rather quickly.

9 But it says here, another thing that it
10 says is the plan -- this is the 1933 United States
11 Chamber of Commerce letter. It says the plan is a
12 bold proposition. It's opponents say if mixing an
13 inferior dilutant costing at a minimum 18 to 20
14 cents a gallon to a product costing 5 cents a
15 gallon, then finding someone to bear the
16 additional cost, in this case the motorist, it is,
17 they say, merely a project to subsidize certain
18 groups of the farm public at the expense of the
19 gasoline consuming public.

20 This is out of Nation's Business, 1933.
21 And I don't see that the game has changed one
22 iota, and it's time for California to say no to
23 ethanol, and put in some products that serve the
24 public.

25 Thank you.

1 COMMISSIONER BOYD: Thank you, Mr.
2 Peters.

3 Neil Koehler.

4 MR. KOEHLER: Wow, that was a set-up.

5 Neil Koehler, with Kinergy Resources,
6 and I'm here speaking today on behalf also of the
7 Renewable Fuels Association, the trade association
8 for that horrible thing, ethanol, that we just
9 heard about.

10 But I would only comment that if we
11 started looking at the cost of September 11th and
12 petroleum dependence, pollution, all of the things
13 that are caused by this over-reliance on petroleum
14 fuels, that puts a very different perspective on
15 the cost of alternatives like ethanol and
16 incentive programs to make sure that we diversify
17 our fuel sources, and move towards renewables.

18 Appreciate, Commissioner Boyd, all the
19 comments, whether it's elephants or systems. But,
20 I mean, that is, we really do need to connect the
21 dots, and I think the fact that there is a whole
22 process going on in reducing petroleum dependence
23 is very encouraging. And I would really hope, to
24 the greatest extent possible, that, you know, this
25 more snapshot of time between now and the end of

1 the year is fully integrated into that.

2 And just my forest through the trees
3 comment on that, I mean, it's very obvious, I
4 think, to anybody, when looking at the system,
5 that without some aggressive move on conservation,
6 which in this case is fuel economy standards and
7 renewables, that we all might as well just walk
8 home. So, you know, and I think there's a lot
9 that can be done on both of those fronts.

10 On the very specific issue before us
11 today, on ethanol and MTBE and gasoline supply,
12 I'd like to just recap what the ethanol industry
13 has done since the Executive Order of March of
14 '99. Since that time, the industry has added one
15 billion gallons of capacity, of new capacity, 15
16 new plants, 20 expansions, and there are currently
17 another 17 plants under construction. The
18 capacity of ethanol production by the end of this
19 year will be 2.7 to 2.8 billion gallons.

20 I'd like to say that one of the biggest
21 problems that was identified when the three-year
22 phase-out was announced was that ethanol supplies
23 would be inadequate to meet the requirement. And
24 it's encouraging to note, from the work done here
25 by the consultants and other work that's been done

1 by CEC Staff and others, that ethanol supply to
2 meet the minimum two percent oxygenate requirement
3 is no longer considered to be a major problem.
4 There are some issues around logistics. I think
5 if you talk to the transport companies and the
6 terminal operators, they'll tell you that that
7 also looks like it's moving forward quite well.

8 So the ethanol industry has risen to the
9 challenge, has invested millions of dollars,
10 employed a lot of people, put a lot of farmers'
11 hard earned savings to work in the midwest, and
12 we've only just begun.

13 The opportunity to bring additional
14 ethanol supply to the market here in California,
15 and nationally, to help meet supply shortfalls, is
16 huge. We're not going to build a single new
17 refinery in the great State of California, yet we
18 have an ethanol industry that is poised, and with
19 the right signals from government, is ready to
20 build literally an ethanol plant in every county
21 of California. We have that level of raw
22 material.

23 But if we are going to send very mixed
24 signals on what we're going to do with MTBE phase-
25 outs, you know, we extend it for three years, what

1 happens three years from now. The problem with --
2 while there's this huge opportunity to build
3 ethanol plants in California, you have to have a
4 market in California. The midwest, they've got
5 some other options. They can bring it to
6 California, they can sell it locally. If you
7 build a plant in California, there are some added
8 costs of producing it here. If you have the local
9 market, both the ethanol and the feed markets, you
10 have an opportunity to be competitive with ethanol
11 shipped in from the midwest.

12 If suddenly you build plants in
13 California and there is no market for ethanol in
14 California, you're SOL. You shut down your plant,
15 you're out of business. So it's a very, very
16 critical point, and anybody making the decision to
17 build an ethanol plant in California, they need
18 the certainty. And all I can say is that by
19 extending the deadline for three years, that will
20 not only freeze any new ethanol production
21 opportunities in the midwest, but it will arrest,
22 before they've even begun, the effort to do it
23 here in California. And that would be a huge
24 missed opportunity, both from the perspective of
25 the environment and the perspective of the

1 economy.

2 The Energy Commission reports have
3 certainly identified the raw materials that would
4 support multi-billion gallons of ethanol
5 production in the State of California. That's not
6 without a cost in terms of helping get these
7 industries started, but if we look at the return,
8 one month of a 30 cent increase in gasoline price,
9 that's really what we're looking at, would pay
10 for, you know, the first round of ethanol plants
11 in the state.

12 So in terms of the holistic thinking,
13 maybe we should look at, you know, what level of
14 public investment on the part of the State of
15 California is appropriate to bring very, very
16 significant supplies of liquid transportation fuel
17 to bear on this market, because it can have a
18 major benefit in terms of the price and the
19 availability of fuels. Again, extending the MTBE
20 deadline will not help in this regard.

21 The opportunities are significant. They
22 are going to take leadership from government.
23 They are going to take a focused response on the
24 part of the private sector. I feel that we are
25 beginning to build. We have the issues, we're

1 seeing where ethanol, now local governments, Yolo
2 County had an ethanol task force. They've
3 recommended that the county get very involved in
4 helping to site ethanol plants. We're starting to
5 see this around the state. In the Central Valley,
6 farmers are desperate for new business
7 opportunities. Ethanol represents a very
8 significant one, and we need to make sure we send
9 the right signals, and extending the MTBE deadline
10 is not that signal, nor is it much of a response
11 to the ethanol industry nationally, that has in
12 very good faith responded aggressively to the
13 challenge and is ready to respond further in kind.

14 And there have been some comments today
15 that address the specific issues on how ethanol
16 can be a part of the shortfall that's been
17 identified, and I'd just like to, you know, echo
18 some of those sentiments.

19 The issue of ten percent ethanol blends,
20 it is possible in the predictive model, as has
21 been mentioned by the consultants, it is difficult
22 under the current model to blend a ten percent
23 ethanol blends. I would argue that if we take a
24 look at the newest data and that we recalibrate,
25 even before looking at new data that I think would

1 give us a different view, but if we were to
2 optimize California's regulatory framework for
3 ethanol blending, as opposed to non-oxygenated
4 blending, then we would create an environment that
5 will allow a ten percent ethanol blend, that will
6 allow pentanes to be put back in, that will make
7 up the five to ten percent shortfall all by itself
8 without having to have any -- losing any ground on
9 air quality and having the kinds of supply
10 shortages that have been indicated.

11 There is really, you know, it sounds
12 simplistic, but it's true, when you look at the
13 environmental benefits, hydrocarbons, carbon
14 monoxide, reactivity benefits, CO2 benefits, that
15 there is nothing that 5.7 percent ethanol can do
16 that 10 percent ethanol can't do better. And so I
17 really think we need to be very aggressive, at
18 least, and in this interest of flexibility, we go
19 to renewable standards at the federal level. Yes,
20 there will be the opportunity to do no oxygenate,
21 and as long as there's the flexibility to do ten
22 percent ethanol, and that we have really addressed
23 some of the regulatory obstacles to that, then I
24 think we will have better served the entire
25 system.

1 So I think that you've heard that from
2 many speakers today, and that as it relates to the
3 predictive model, we very definitely need to
4 address that.

5 The production in the State of
6 California, where we have had Energy Commission
7 reports that have looked at anything from 200
8 million to 3.7 billion gallons, that those are
9 very, very big numbers, that have been documented
10 by Energy Commission Staff and certainly would
11 encourage the consultants here to incorporate that
12 into further fine tuning of this analysis, because
13 I think those gallons that could be produced in
14 California and additional gallons that can be
15 produced in the midwest could be very helpful in a
16 very short period of time.

17 Some other things just to throw out as a
18 possibility. If for some reason the Governor, in
19 his infinite wisdom, decides there needs to be
20 some extension of the MTBE phase-out, that we need
21 to figure out how we can respond to the commitment
22 that the ethanol industry hear in California and
23 elsewhere in the country has already made. It
24 would really be a shame that if we shut down
25 ethanol plants that have built to respond to this

1 need, and I think that's what would happen if
2 there was a carte blanche three-year extension of
3 the MTBE deadline. You would have to see capacity
4 shuttered in the midwest. And that's not going to
5 do a lot for the future of our fuel supplies here
6 in California, or elsewhere in the country.

7 So maybe there are other ways of looking
8 at it. We know, we've seen from the consultants'
9 report, and I think it's exactly correct, that
10 this is more of a summertime issue than a
11 wintertime issue. Addressing the predictive model
12 I think would help alleviate that problem, but in
13 the meantime, is there any reason why, if there is
14 to be an extension, we shouldn't consider that to
15 be only for summertime use, and that we have an
16 MTBE ban in the winter months? That would be one
17 possibility.

18 Another possibility, it's been discussed
19 how this is really more of a southern California
20 problem than a northern California problem. In
21 northern California, you already have the
22 flexibility in the largest market in the north,
23 the San Francisco Bay, to do non-oxygenated fuel.
24 It is not required under the federal oxygen
25 requirement to blend ethanol or MTBE in San

1 Francisco. So a potential north/south, where we
2 say okay, let's give them another year in southern
3 California to play catch-up, but in northern
4 California, the ban continues.

5 And I'm not advocating any of these
6 approaches, just in the interest of identifying
7 other potential alternatives, I think they're
8 worthy of some consideration. And it's a, really,
9 question to Staff whether they had, in this
10 analysis, taken a look at any of those scenarios.

11 So on behalf of the ethanol industry,
12 both here in California and elsewhere, we are, you
13 know, absolutely reaching out to be a partner in
14 solving the transportation supply crunch, and look
15 forward to more fruitful opportunities to put that
16 in action here in the state. Thank you.

17 COMMISSIONER BOYD: Thank you. Mr.
18 Hackett, any comments from your folks?

19 MR. HACKETT: Yeah, a couple. And Neil,
20 we're looking forward to working with you guys on
21 these issues. You know, I think we want to get
22 into the logistics and make sure we know where
23 that's going, and there's, as Gregg said, we can
24 fill in some of that dark space between the
25 galaxies relative to ethanol logistics.

1 We, I think that, you know, looking at
2 winter/summer type blending is useful. Frankly,
3 we did -- have looked at a north/south split, and
4 you can see from the balances that we did that
5 with an MTBE phase-out the shortfall falls
6 dramatically in the south. Then you wind up, and
7 we thought about that, and we're still kind of
8 looking at it, but it comes back to the issue of
9 creating another fuel, and we're trying to stay
10 away from the word boutique, but -- and so when
11 you do that, when you create another separate fuel
12 then you create another set of problems with
13 supply when things happen north/south. So, but
14 we'll keep poking at that one.

15 COMMISSIONER BOYD: Thank you. Now,
16 that exhausts the supply of questions and speakers
17 that I was provided. Is there anyone else in the
18 audience who got left out, somehow or another, by
19 being shuffled out?

20 If not, then we've reached the wrap-up
21 and closing remarks well before dinnertime. Which
22 -- oh, there's a hand. Yes, sir.

23 MR. TUTTLE: Are you going to allow
24 comments in the public section, or is that --

25 COMMISSIONER BOYD: Touche. Yes. Would

1 you -- I apologize for forgetting to specifically
2 reference public comment. We got on a roll there
3 with everybody being rolled in to the six
4 categories. So if you'd give us your name and
5 affiliation, we'd be glad to hear from you.

6 MR. TUTTLE: Thank you. You can
7 probably lump me in with the potential impacts of
8 the MTBE phase-out, as far as being the
9 appropriate place.

10 COMMISSIONER BOYD: Then we would've
11 heard you a long time ago, and I apologize.

12 MR. TUTTLE: Thank you, Commissioner
13 Boyd. My name is Chad Tuttle, I'm with Kern Oil
14 and Refining Company. I've got some prepared
15 comments I'll also share with Staff.

16 Kern acknowledges the considerable
17 effort put forth by Staff to monitor the switch to
18 MTBE-free gasoline with the ultimate goal of a
19 smooth transition. Kern is the only small
20 independent refiner producing California
21 reformulated gasoline, and is probably negatively
22 impacted by the phase-out of MTBE more than any
23 other refiner in California.

24 Kern supports Staff's findings. Kern
25 supports the Staff's and contractors' findings

1 that there may, and most likely will be supply
2 shortfalls of gasoline and gasoline blending
3 components if the phase-out of MTBE were to
4 proceed as scheduled, by the end of this year. We
5 are pleased Governor Davis recognizes the
6 importance of closely monitoring the switch, and
7 is now considering taking appropriate action to
8 ensure a smooth transition.

9 This approach is consistent with
10 Governor Davis' comments to California refiners on
11 March 26th, 1999, following his decision to phase
12 out MTBE. Specifically, he stated the phase-out
13 date, and I'll quote, "is not locked in concrete."
14 At the same time, he challenged refiners to work
15 towards the earliest possible phase-out date.

16 As relates to the pending decision, it
17 is noteworthy that many refiners prefaced their
18 support of the current phase-out deadline on the
19 success of a California oxygenate waiver. In the
20 broader context, much of the uncertainty of
21 gasoline supply may relate to the uncertainty of
22 the oxygenate waiver.

23 I've got a few comments on timing of the
24 issue now, and the most important issue to Kern.
25 Prior experiences in California certainly indicate

1 cause for concern. California experienced market
2 instability during the introduction of
3 reformulated diesel, reformulated gasoline, and,
4 most recently, electricity deregulation. In each
5 of these cases, we thought we were well prepared,
6 and still experienced disruptions. Today, we know
7 we are not well prepared, which will at best lead
8 to disruptions.

9 The timing of Governor Davis' decision
10 is the single most important issue for Kern. A
11 decision is needed today. Kern is devoting
12 substantial resources towards multiple business
13 plans with varying phase-out deadlines. The
14 process of having to create these several unique
15 business plans is costly and inefficient. This
16 atmosphere of uncertainty is further complicating
17 and distracting for Kern, a small business refiner
18 with limited resources.

19 Kern supports at least a ten-month
20 extension of the MTBE phase-out deadline. We
21 believe an extension is warranted based on the
22 following points.

23 Point one. Additional time is needed to
24 conclude the administrative, legal and legislative
25 proceedings related to California's oxygenate

1 waiver request.

2 Point two. Permitting delays have
3 occurred, particularly in the Bay Area, and
4 additional time may be needed to secure permits
5 for refinery retooling. We do understand there
6 has been some progress towards that end.

7 Point three. Ethanol supply chain
8 infrastructure is not yet in place, and in
9 particular, that related to needed railcar
10 inventory expansion.

11 Point four. Kern's extensive experience
12 with rail supply is not good. We often experience
13 supply disruptions as related to our blend
14 component deliveries from other pads. Kern must
15 frequently, and I'll quote, "thread the needle" is
16 the term we use around our refinery, to ensure
17 deliveries of blendstocks. This is especially
18 noteworthy based on Kern's limited processing
19 configuration and dependence on imported
20 blendstocks. We can speak from experience. We
21 often refer to the railroad system as a brute
22 force means of receiving and relying upon gasoline
23 blendstock supply.

24 Point five. Additional time would allow
25 commercial negotiations with ethanol supply

1 interests to stabilize, as well as even the
2 identification of imported non-ethanol gasoline
3 blendstocks, which continues to be uncertain with
4 other states following California.

5 My closing remarks. Again, Kern
6 supports the overall Staff evaluation that there
7 may and most likely will be supply shortfalls of
8 gasoline and gasoline blending components if the
9 phase-out of MTBE were to proceed as scheduled, by
10 the end of this year.

11 I've got a couple of closing points.
12 Kern is a vested stakeholder. Point two, Kern
13 would like to again emphasize the importance of a
14 decision now. We're at the point no return with
15 regard to certain irreversible decisions and
16 commitments to ensure refinery compliance with the
17 current deadline. Should we turn up ethanol
18 supply? Should we now serve notice of
19 cancellation with regard to MTBE contracts?
20 Should we extend our MTBE contracts? Should we
21 now contract for railroad transportation?

22 These questions and considerations go on
23 and on and on. Both we and our suppliers need to
24 know what to do now.

25 Closing point three. Kern believes at

1 least a ten-month extension is appropriate. Not
2 all the links of the supply chain must -- excuse
3 me. All the links of the supply chain must be in
4 place. That is, ethanol production,
5 transportation infrastructure, refinery retooling,
6 and terminal modifications.

7 Closing point four. The success of the
8 phase-out will depend on the weakest link, and if
9 ethanol transportation concerns are confirmed, the
10 Governor needs to step in soon.

11 And point five. California is dependent
12 on an element of competition that Kern provides.

13 That concludes my remarks.

14 COMMISSIONER BOYD: Thank you. Any --
15 Dave, any questions or comments?

16 MR. HACKETT: Yes, sir. Mr. Tuttle
17 brings up a point that we haven't covered, but
18 certainly has been on our minds, and that is the
19 issue of certainty. Is this going to happen or
20 not. When Staff asked us for a timeframe of when
21 does the industry have to know, we said well,
22 that's tough one to answer. As soon as possible
23 is the right answer, and if we had, if you push us
24 to the wall, we'd say the first of March, because
25 they've got construction contracts -- they, I mean

1 I think the ethanol folks and the railroad folks,
2 and everybody involved in this. They have
3 construction contracts. They've got purchase
4 contracts. I would think refiners are negotiating
5 with ethanol suppliers now, and the like.

6 So the sooner it becomes clear, in or
7 out, MTBE phase-out goes as scheduled or it
8 doesn't, the easier it will be for this entire
9 elephant to get moving forward.

10 And then, on the second point of the
11 ten-month extension. What a ten-month extension
12 does, I think it probably gets us into November of
13 2003, is that what you're thinking, Chad?

14 MR. TUTTLE: Yes.

15 MR. HACKETT: And we think that's
16 useful, but I don't see that as enough time to get
17 some of the other elements that we have sketched
18 out in place, which includes an expansion of
19 import capacity.

20 COMMISSIONER BOYD: Thank you. Thank
21 you, Mr. Tuttle.

22 Anyone else in the audience who wishes
23 to say something?

24 Okay. Thank you. So it does come down
25 to wrap-up and closing remarks.

1 I do want to say something to Mr.
2 Tuttle, though. You referred to this a couple of
3 times as a kind of Staff findings, and I need to
4 remind folks that this is a workshop we're having
5 today of the Fuels and Transportation Committee,
6 to hear not only from the Staff, on one facet, but
7 really to hear from the consultant on the findings
8 of their study. So what we've been discussing
9 today are really the findings of the Commission's
10 consultant.

11 Now, Staff will have to digest all
12 they've heard today, and the work of their
13 consultant, and actually come forth with some
14 recommendations. And a final report, which I
15 mentioned this morning, would be completed by the
16 8th of March.

17 So let me remind everyone again that
18 your written comments, if you so choose, are
19 solicited and welcome, but due by the 1st of
20 March, and anytime sooner would be greatly
21 appreciated by the Staff, I know, because we've
22 given them a terrible one week turnaround time.
23 E-mail is preferred, and the workshop notice has
24 the e-mail address. But any way, shape, or form
25 is fine. Reactions to what you've heard today,

1 reactions in particular to alternative solutions,
2 that's kind of what we're looking for.

3 So that's the deadline that the Staff is
4 working under, and, in effect, the Commission is
5 working under. We recognize the tight timelines
6 associated with this subject. Originally I
7 thought you would've said last fall was the
8 deadline for a decision. I think it was, in some
9 people's mind, but it keeps moving forward. And I
10 appreciate the dilemma that it creates. But, oh,
11 I hate to make another elephant analogy, but
12 there's something about a pimple on the backside
13 of an elephant, you know, and I think we were
14 working with that problem, or some folks were, in
15 the beginning, and now you've brought the whole
16 elephant out on the table.

17 I used to like iceberg analogies, and
18 you would've pulled the whole iceberg out of the
19 water for us to see. But nonetheless, we've seen
20 today in response to a fairly simple question,
21 possible impacts of MTBE phase-out on the gasoline
22 supply, we've seen the whole elephant, or the
23 whole iceberg. The system, the ramifications of
24 this topic, to a host of other topics, a read to
25 the whole subject area. Which gives rise to some

1 points we've made earlier today about other
2 activities the Commission is carrying on, and
3 other dates that I want to mention that are part
4 of this analysis of the system.

5 On February 26th, there is a workshop on
6 the AB 26 activity. That's the petroleum
7 displacement report. I know that word is
8 offensive to some people, but that's a quote right
9 out of the statute, so, looking at alternatives
10 might be an easier one to swallow, but that's what
11 it is.

12 March 8th, I've already mentioned, is
13 the deadline for this Staff report. March 13th,
14 there is another workshop on AB 2076, the cost
15 benefit -- the Strategic Petroleum Reserve
16 Workshop. And on March 14th, there is a workshop,
17 or, yeah, a workshop on the Petroleum Pipeline
18 Report, required by yet another piece of
19 legislation.

20 These are all pieces of the system, but
21 not the whole system. So there's going to be a
22 lot of talk across agency lines, and hopefully
23 between you folks and the affected agencies about
24 this entire problem.

25 I thank the Staff and the consultants

1 for what I think is a great piece of work, given
2 the very short period of time, and given the fact
3 that, as I indicated, the topic was fairly
4 narrowly titled, but is not a very -- is not a
5 narrow subject. It's an extremely broad subject,
6 and if you -- if we just isolate the subject a
7 little bit about dealing with MTBE, and we look at
8 that subject as kind of a three-legged stool,
9 consisting of supply, and transportation to
10 California, and California distribution system,
11 when it comes to ethanol I think we've heard
12 there's lots of supply.

13 When it comes to other constituents for
14 addressing the volumetric needs for gasoline
15 transportation fuel in California, we've heard
16 today there are supply problems. When it comes to
17 transportation to California, for either of the
18 subject areas, either ethanol or gasoline
19 constituents, here we have serious concerns about
20 transportation to California, and with regard to
21 the California distribution system, the ethanol
22 distribution system sounds to me like there are
23 difficulties. There are problems there.

24 The standard gasoline distribution
25 system is working; for better or for worse, it's

1 working. But when you start, if you're going to
2 introduce ethanol into that system, why, we start
3 having some difficulties.

4 Now, I will ask the consultants to tell
5 me if I'm wrong in any of those fairly simplistic
6 analogies, but that's just kind of the way I hear
7 it. Staff and people who have been working with
8 this a lot longer, certainly have a greater
9 understanding of the issue. But just to
10 supplement my fairly lengthy comments at lunch
11 today about the issues, that's an attempt to, from
12 my perspective, to simplify kind of a lot of what
13 I've heard today.

14 There's an awful lot of other things
15 I've heard that -- some of which are near and dear
16 to my heart, that are issues that need to be
17 explored, and others that are just issues we need
18 to look at, such as, you know, how to increase the
19 domestic supply of ethanol, and vis-a-vis being
20 dependent on out of state ethanol. I mean, you do
21 hear me refer to the nation State of California,
22 and we like to think of our own, and a lot of
23 work's gone forward on that.

24 We bounced off the subject of the
25 ability to increase refining capacity in

1 California, and that subject's never been
2 adequately addressed, or whether it's a meaningful
3 thought at all. But it's something that needs to
4 be talked about. We identified external factors
5 that would affect this issue, such as CAFE, such
6 as other forms of fuel diversity that could
7 address the subject.

8 But the big thing that's happened today,
9 besides the simplistic look at systems analysis or
10 elephant analysis -- and I won't let go of that
11 one for several days, I'm sure -- is just the fact
12 that we really turned a rock over on the
13 California fuels market headed for trouble, even
14 without the MTBE issue. And, as I said at noon, I
15 think we're getting to look at this issue more
16 in -- well in advance. I don't know if you're
17 ever well in advance, but at least in advance of
18 the situation, and with perhaps time to address
19 the issue, rather than have some of the issues hit
20 us in the back of the head, as has been the case
21 in other energy areas.

22 I'm trying not to reference electricity,
23 but the analog is there, and lessons were learned
24 there that we need to apply here.

25 So, with that, again, thank you to all

1 of you for your participation today. This is a
2 very formal/informal workshop, but that's just the
3 logistics of the room. It would've been nice if
4 we were all sitting around a giant table and could
5 be more informal, because this was meant to be
6 just that. But I think in spite of the barrier
7 here, it worked out quite well, and I'm pleased
8 with what I heard.

9 And representing the Fuels and
10 Transportation Committee, it's been very
11 enlightening for me, and hopefully the Staff can
12 now carry forward with this and bring its
13 recommendation back to that Committee, and then
14 issue its report by its own self-imposed deadline
15 of the 8th of March.

16 So, thank you everybody, and be careful
17 out there, as they say.

18 (Thereupon, the workshop was
19 concluded at 4:10 p.m.)

20
21
22
23
24
25

CERTIFICATE OF REPORTER

I, PETER PETTY, an Electronic Reporter,
do hereby certify that I am a disinterested person
herein; that I recorded the foregoing California
Energy Commission Committee Workshop; that it was
thereafter transcribed into typewriting.

I further certify that I am not of
counsel or attorney for any of the parties to said
Committee Workshop, nor in any way interested in
the outcome of said Committee Workshop.

IN WITNESS WHEREOF, I have hereunto set
my hand this 27th day of February, 2002.

PETER PETTY

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345